Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

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OPD REPORTS FROM EUROPE PAGE FIVE

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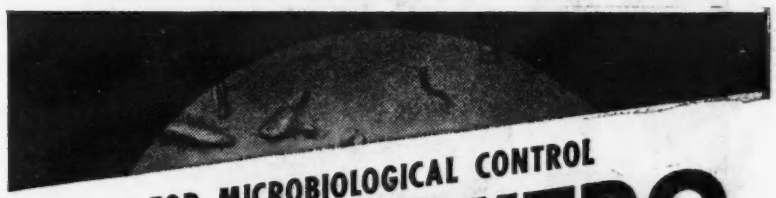

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Oil, Paint and Drug Reporter

Vol. 178 No. 12 30 Church St., New York 7, N. Y. September 12, 1960

DIRECTOR OF ADMINISTRATION: Jay B. Ford, named director of administration for United States Borax & Chemical Corporation, Los Angeles.

Wallace & Tiernan, Drug Firm to Merge

Wallace & Tiernan, Inc., is moving to broaden its base in the pharmaceutical field. Directors of the Belleville, N. J., firm and R. J. Strasenburgh Company, Rochester, N. Y., have agreed to merge the two firms subject to stockholders approval.

Strasenburgh will become a second drug division of Wallace & Tiernan. Maltbie Laboratories is the other drug unit of the company.

Under terms of the proposed merger, Strasenburgh's shareholders will exchange 200,000 shares of Wallace & Tiernan's stock at pre-split value. (W&T directors have recommended a two-for-one stock split and an increase in the annual dividend.)

Strasenburgh will operate as a division of W&T with Edward G. Strasenburgh and Robert J. Strasenburg, 2nd, becoming directors of the parent firm with the merger of the companies.

Among the prescription drugs produced by Strasenburgh are "Biphetamine" and "Ionamine," used as appetite suppressors; "Alkalon-T" for peptic ulcers, and "Tussionex," a tablet and drug remedy for coughs.

Wallace & Tiernan had an income last year of $4.3 million on sales of $51.8 million. The company declined to disclose sales of Strasenburgh.

Wallace & Tiernan is a producer of pharmaceuticals, chemicals, instruments and equipment. Present operating subsidiaries, aside from Maltbie, include:

Lucidol Division; Harchem Division; American Machinery Corporation; Electro Rust-Proofing Corporation; Baker Process Company, and W. C. Hardesty Company of Canada, Ltd.

Blackstrap Antitrust Cases Ending in a Consent Decree

Price fixing and other practices judged to be in violation of the antitrust laws are to be ended in the blackstrap molasses industry.

The Federal Trade Commission and the leading firms in in the industry have consented to an order for discontinuance of the alleged practices cited in a complaint issued earlier by the commission.

Named in the complaint and agreeing to the order are Southwestern Sugar & Molasses Company, New York, and its two subsidiaries—Standard Molasses Company, Beaumont, Tex., and Imperial Molasses Company, Ltd., Montreal, Canada; its affiliate—Molasses Products Company, New Orleans La. (this concern is presently inoperative); and these two business

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Drug Industry Gets the News It Has Long Been Waiting For: Ol' Coonskin Is Going Away

Ol' Coonskin is going away! Sen. Estes Kefauver, the Tennessee legislator who has been poking and probing and prying into the drug industry for more than a year, has just announced that he is near the end of his price investigations and will soon call a halt to the whole performance. Ahead is only one more round, this one a "product" session on certain vitamins, sulfa drugs and other items that figure importantly in consumer spending for medicines. As yet, Estes has not got around to setting a date for this final inquisition.

He says that insofar as the drug industry is concerned, most of the committee's time henceforth will be concerned with developing and examining legislative proposals to deal with the various problem areas which have been uncovered in the investigations.

Wants to Hear from AMA

He wants to hear from the American Medical Association and other medical groups in developing these legislative proposals.

The import of his remarks, made at the opening of the antibiotic hearings last week, appeared to be that the senator may be scrapping the bill he introduced in the closing days of the last regular session in favor of something more embracing.

His bill provided for licensing ethical drug manufacturing and required producers to prove to the satisfaction of the Food & Drug Administration that the drugs being offered on the market are "efficacious" as well as safe.

In certain respects, his bill was regarded in some drug circles as being less far-reaching than the proposal offered by Secretary of Health, Education & Welfare Arthur S. Flemming, who asked that congress greatly expand FDA's factory inspection authority over the entire drug industry—not just the ethical drug industry.

One thing the senator wants in the law is some means of holding down prices. He believes this can be done by a require-

—Continued on page 70

Witco, US Rubber Form Overseas Chemical Unit

Witco Chemical Company, New York, and United States Rubber Company will organize a new chemical firm, Sto-Chem, Ltd., to produce synthetic rubber latex in England. The company will be jointly-owned.

The manufacturing plant, to be built on a twenty-acre site in the Midlands of England, has been slated to go into operation in the fall of 1961 with an initial capacity of 8 million pounds. Total investment will be more than $2.5 million.

A line of butadiene-styrene, high styrene, nitrile and acrylic types of synthetic rubber latex will be produced.

George R. Villa, a group vice-president of US Rubber, will be chairman of the board of Sto-Chem. Douglas Roberts, who has been director of manufacturing for Witco's UK operations, will leave that post to become general manager of the new firm.

Sto-Chem's output will be handled exclusively by Witco Chemical Company, Ltd., Witco's wholly-owned British subsidiary.

OLIN VICE-PRESIDENT: Fred J. Stock, vice-president for marketing of its E. R. Squibb & Sons Division, who has been appointed a corporate vice-president by Olin Mathieson Chemical Corporation, New York.

Bristol's Penicillin: No. 1 in Antibiotics?

There are a lot of synthetic penicillins coming to market, but Bristol Laboratories' new entry—"Staphcillin"—may prove to be the biggest thing in antibiotics since tetracycline.

That's what observers are saying as evidence of the drug's effectiveness against staphylococcus germs piles up. *Staphylococcus Aureus*, heretofore resistant to all forms of antibiotic therapy, has been running rampant in the nation's hospitals.

This, ironically, has been the result of indiscriminate use of antibiotics which reportedly have wiped out some of the germs that protect the body from staph infections.

A research team headed by Dr. Alexander Gourevitch of Syracuse, N. Y., re-

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Dow Is Suing Stauffer On Perchlor, Carbon Tet

Dow Chemical Company, Midland, Mich., has brought a patent infringement suit against Stauffer Chemical Company, New York. The suit, filed in US District Court in Wilmington, Del., charges Stauffer with infringing Dow process patents on perchloroethylene and carbon tetrachloride. Stauffer refused comment, pointing out that the matter is in the hands of its general counsel.

Military May Go Abroad for Drugs, US Firms Warned

Drug manufacturers can expect to see more and more of the military market for the industry's products being taken over by foreign suppliers—including the Italians—unless producers can come up with more convincing evidence than they have in the past to justify the prices they have been quoting to the Military Medical Supply Agency.

This became evident last week in testimony of Rr. Adm. William L. Knickerbocker, executive director of MMSA, before the Kefauver committee investigating drug prices, who charged domestic pharmaceutical makers with too often submitting what the agency considers to be "non-competitive prices."

"The material furnished by American industry is of the highest quality," he told the committee, "but, unfortunately, I am not as reassured as to the realism of the prices offered or as to the extent of genuine competition received.

MMSA Wants Its 'Money's Worth'

"We are not bargain-hunting abroad for the cheapest item available. However, we are determined to get our money's worth wherever that can be done. We are resolved to obtain items of the required quality from responsible reliable suppliers who offer us the best price."

In his prepared statement to the committee, Adm. Knickerbocker cited many instances of identical price offerings for the broad-spectrum antibiotics by American suppliers and complained of the rigid price level maintained by the industry, irrespective of the amounts involved in the purchase program.

He also defended recent contracts awarded to an Italian firm for supplying over $1 million of tetracycline tablets, though he ignored the patent issue raised by the American owners.

He justified the purchase purely on the grounds that they were in accord with the Buy American act, contending that had the agency done otherwise it would have violated existing laws and regulations.

His contentions were promptly challenged by the Pharmaceutical Manufacturers Association, which warned that adoption of such a policy by the military is a detriment to American labor and government taxes, raises the possibility of dumping foreign goods on the US market, will place a restraint on US inventions and research and violates private rights of America's patent holders.

The patent issue involved in the deal between the military and the Italian firm, Farmochimica Cutolo-Calosi, was first brought before the committee by Lyman Duncan, manager of Lederle Laboratories Division of American Cyanamid Company, Pearl River, N. Y., who with Dr. W. G. Malcolm, president of Cyanamid, opened the antibiotics phase of the committee's drug-price investigation last week.

He told the committee of Italy's refusal

—Continued on page 43

DuPont Weighs Color Film, But Not in Technicolor Tint

E. I. duPont de Nemours & Co. is weighing a move into the color film business—but is a year away from making a decision. This is what the Wilmington, Del., firm revealed last week.

The duPont statement came in reply to apparent rumors that it and Technicolor, Inc., had signed an agreement whereby duPont would produce the color film and Technicolor would market it. Not so, says duPont.

Enjay to Hike Benzene Capacity by 60 Percent

Enjay Chemical Company will boost capacity at its Baton Rouge, La., benzene plant by 60 percent.

The Humble Oil & Refining Company division says its benzene capacity at Baton Rouge will be increased from 15 million gallons to 24 million gallons a year by the end of 1960.

Enjay points out that styrene and synthetic phenol use well over half of the current benzene capacity, and that these end-use markets have been expanding.

Chemical Future: It's Waking Up the Politicos

Regardless of which candidate wins in November, the next administration is going to take a greater interest in the nation's scientific progress than either of its two predecessors.

Observers are wondering specifically what consequences this will have for the chemical industry.

While nothing comparable to the seige of Washington by intellectuals that took place during New Deal days is envisioned, the evidence accumulating so far in the campaign points to increased "communication" between science and government.

Vice-President Nixon last week proposed a major new program of basic research aimed at keeping the US ahead of Russia in scientific progress.

In a campaign paper titled "The Scientific Revolution," he said that the new congress should establish a National Science Foundation to take the lead in sponsoring basic research. A network of independent graduate institutes would be established with joint financing by government, industry, private foundations and the universities.

Mr. Nixon said: "As a nation we must realize that our twentieth century pioneer, the basic research man, is one of our greatest and most precious national resources.

"He is the man who will make the new strides in knowledge, the breakthroughs on which all our science and technology depend."

The Vice-President emphasized that the institutes he envisions should be small and maintain a "degree of autonomy" that he termed "absolutely vital."

"Because of our heritage of expecting practical achievement from effort," he said, "we too often inquire of the scientist: 'What discovery do you plan to make?' or 'What can be done with it?'"

Chemical Producers to Spend 30 Percent More on Expansion

Chemical producers are pushing their sights higher on new plants and equipment expenditures this year and now figure to spend about $1.61 billion on capital improvements by the end of December. This is about 30 percent more than last year and compares with $1.32 billion spent in 1958. These estimates come from a joint statement issued last week by the Department of Commrce and the Securities & Exchange Commission, and are based on surveys conducted in late July and August.

While industry generally plans to level off during the last six months of the year, chemical producers are going ahead.

Third-quarter capital investments of about $400 million are about the same as those for the second quarter, but for the fourth quarter chemical producers plan $480 million of investments compared with $330 million in the fourth quarter of last year.

The Fourth-Quarter Rate

On a seasonally adjusted basis, fourth-quarter capital spending by the chemical industry is planned at an annual rate of $1.7 billion, as compared with a yearly rate of only $1.45 billion computed on the first-quarter spending.

Going along with the chemical industry in boosting spending for new plants and equipment—at a rate 30 percent greater than last year—are the textile and rubber products groups.

But, reflecting the less favorable petroleum situation, oil companies have been reducing the amounts they expect to spend, so that their $2.6 billion program for 1960 is now only a little above 1959.

According to the two government agencies, American business as a whole is planning to spend for plant and equipment at a seasonally adjusted annual rate of about $37 billion in each of the last two quarters of this year—10 percent above a year ago. Expenditures in the first two quarters were at the annual rates of $35 billion and $36¼ billion, respectively.

Investment for 1960 is now expected to be $36⅓ billion, 12 percent more than the $32½ billion total for 1959. Programs

—Continued on page 59

Chemists Can Gather Up Prizes With Their Noses

The nose will have it at Chemical Exhibition USA 1960, which is slated to be held in conjunction with the 138th American Chemical Society meeting in New York this week.

The twenty-five most accurate odor analysts among registrants will receive suitable awards from Aceto Chemical Company, Flushing, N. Y., attesting to their abilities.

Aceto plans to give chemists an opportunity to test their ability to recognize chemicals by odor. The contest will be conducted September 13 to 15 at the company's display in the Statler-Hilton hotel.

Aceto didn't identify its "suitable award." No one can sniff it out, either.

Philips Vaccine Knocks The Spots Off Measles

Measles, that speckled scourge of childhood days, may be meeting its match in a new vaccine developed by Philips Electronics & Pharmaceutical Industries Corporation.

The new Philips vaccine is said to have the potential for a mass-immunization program.

Field trials, carried out by a University of Maryland School of Medicine research team under the direction of Dr. Fred E. McCrumb, indicate that a practical method for mass-immunization against the disease may be at hand, according to an announcement from Philips.

The drug immunized 86 percent of school children inoculated, according to Dr. McCrumb, who has headed the team for the past fifteen months.

Produced from cultures of weakened (attenuated) live virus, the vaccine may

—Continued on page 67

Monsanto Boosts 'Saflex'

Monsanto Chemical Company has posted price advances on its "Saflex" polyvinyl butyral sheeting, ranging from 7.2 percent for graduated color products to 10 percent for clear. They are effective October 1. The material is a plastic sheet used as an interlayer in the manufacture of shatter-resistant laminated safety glass for automobiles and trucks.

Linde's Hydrogen Plant Now Running at Full Tilt

Linde Company has started full-scale production of liquid hydrogen at its new plant in Torrance, Calif. The Union Carbide Corporation division has just delivered over 300,000 pounds of the material to West Coast missile development projects.

The Torrance plant is reportedly the first privately-owned and operated facility to supply liquid hydrogen on a commercial basis. It is designed to provide up to 3.3 million pounds a year under contract to the National Aeronautics & Space Administration.

Production capacity is rated at 13,000 pounds a day, exceeding NASA's estimated maximum contract, by some ten pounds daily. In addition to trailer-load shipments to western missile development centers, the Carbide division will make available trailer-load shipments and liter quantities for industrial and other applications.

The Week's Price Changes

Corn, Peanut Oils, Cottonseed Meal, Soybean Meal Advanced. Casein, Capric Acid, Coconut Oil Acids, Tung Oil Reduced.

Prices Advanced

Corn oil, crude, ¼c. per lb. (p. 69).
Refd., ½c. per lb. (p. 69).
Cottonseed meal, $2 per ton (p. 69).
Iron oxides, ¼c. per lb. (p. 66).
Peanut oil, crude, ½c. per lb. (p. 69).
Refd., ½c. per lb. (p. 69).
Soybean meal, $1 per ton (p. 69).
Soybean oil, crude, ¼c. per lb. (p. 69).
Refd., ¼c. per lb. (p. 69).

Prices Reduced

Casein, Argentine, ½c. per lb. (p. 66).
Capric acid, 1½c. per lb. (p. 69).
Castor oil, No. 1, Braz., ¼c. per lb. (p. 69).
Coconut fatty acid, 1½c. per lb. (p. 69).
Coconut oil, crude, Pac. coast, ¼c. per lb. (p. 69).
Coconut oil, refd., deod., 2c. to 2½c. per lb. (p. 69).
Copra, $2.50 per ton (p. 69).
Lard, cash, ½c. per lb. (p. 69).
Lauric acid, 1½c. per lb. (p. 69).
Lime oil, Mexican, 25c. per lb. (p. 63).
West Indian, 25c. per lb. (p. 63).
Linseed meal, 50c. to $1 per ton (p. 69).
Myristic acid, 1½c. per lb. (p. 69).
Tung oil, ¼c. per lb. (p. 69).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Sept. 9, 1960	Sept. 2, 1960	Sept. 11, 1959
109.77	109.68	110.20

Vick Coughs Up New Name

Vick Chemical Company, fifty-five years old and selling its wares in 118 countries, thinks it's time for a change, a name change that is, to reflect the firm's increasingly bigger stake in the ethical drug business. Thus, the company's ethical drug subsidiary, Wm. S. Merrell Company, acquired by Vick in 1938, will provide half of the proposed new name. The other half of "Richardson-Merrell, Inc." would celebrate the company's founder, Lunsford Richardson, who organized Vick in 1905.

The new name would become effective with stockholder approval at the next annual meeting on October 18.

Vick, says Smith Richardson, jr., company president, has come a long way since the company was named for a brother-in-law of the founder in 1905.

The 'Vick' Trade Name

And the "Vick" trade name, he adds, still has a longer way to go as a household by-word for chest rubs, cough drops and proprietary drugs. Not only will these products still carry the old name, but the company also plans to re-name its domestic proprietary division, "Vick Chemical Company Division of Richardson-Merrell, Inc."

"Vick," he says, "is one of our most valuable assets."

As indicative of the company's increasing diversification, Mr. Richardson re-

—Continued on page 59

ADMINISTRATIVE SERVICES MGR.: Philip J. Weaver, named manager of administrative services for B. F. Goodrich Chemical Company's Avon Lake, Ohio, development center.

Chemico to Construct Tampa Ammonia Unit

Chemical Construction Corporation, New York, has been awarded a contract to construct US Phosphoric Products' new multi-million dollar ammonia plant in Tampa, Fla. Using natural gas as a raw material, the facility will have capacity of 350 tons a day.

Engineering is already under way on the facility, which will feature an ammonia synthesis converter. US Phosphoric Products is a division of Tennessee Corporation, Atlanta, Ga. The project reportedly brings the total number of Chemico-designed ammonia plants to seventy-five and is the fourteenth such plant to be built by the firm since 1950.

Johnson Wax Organizes Swiss Subsidiary at Zurich

Johnson Wax Company, Racine, Wis., has established a subsidiary in Switzerland. The new company, Johnson's Wax Fabrik, AG, will be located in Weiningen, a suburb of Zurich.

A broad range of Johnson products will be produced by the company. These include waxes, polishes, insect repellants and insecticides, car care products and electric commercial polishers.

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Alcohol: Taste Gets Worse

Alcohol, depending on how you take it, can be good, bad or absolutely atrocious. Now, Walker Chemicals, Inc., Mount Vernon, N. Y. is coming along to handle something that will make the stuff even more atrocious than atrocious.

The product is called "Bitrex," and the US Treasury—which has just cleared it for use in this country as a substitute denaturant for ethyl alcohol—says that it makes that otherwise attractive beverage unpalatable enough to give it tax-free status.

"Bitrex" is made by T. & H. Smith, Ltd., of Edinburgh, Scotland, and is being distributed by Walker as the exclusive agent in the United States. Walker says the denaturant is probably the "bitterest substance known to man."

Previously the two bitterest substances permitted in the US for the preparation of specially denatured toilet alcohol (Formula No. 40) were brucine and quassin. Both of these are derived from vegetable sources, and brucine right now is in what is called a "very, very" tight supply spot.

The new material is a synthetic organic chemical and therefore not dependent on vegetable raw materials, which are often erratic supply-wise.

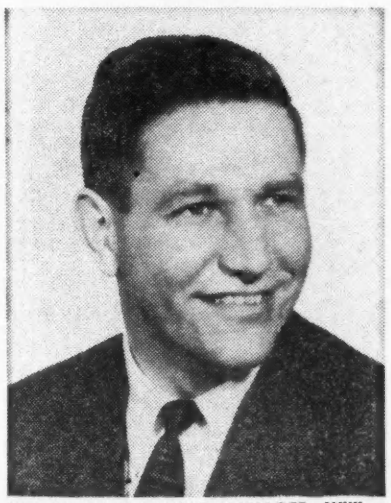
"Bitrex" is a white, crystalline powder, in appearance similar to table salt. In America one-quarter of an ounce can be used to treat 100 gallons of ethyl alcohol. This is one-sixth the quantity required when other substances are used.

The new compound is non-poisonous, non-corrosive and does not cause skin irritation. (But just exactly what it is, chemically speaking, Smith isn't saying.) Patent applications have been filed for both the substance and its uses.

In a number of countries substandard vegetable oils are used for soap-making and require treatment with a substance to render them inedible.

US Petroleum Naphthalene Kitty Boosted Again by Collier, Tidewater

America's non-existent petroleum naphthalene industry is now rolling toward a 1961 capacity target of some 275 million pounds yearly. Observers thought all bets were in last week, as the ghostly industry's paper empire stood at 225 million pounds, but now Collier Carbon & Chemical Corporation and Tidewater Oil Company reveal that their share of the gestating business will be born 100 million pounds strong in '61, not just 50 million. The two firms, whose plans to construct a 50-million-pound petroleum naphthalene plant at Tidewater's Delaware City, Del., refinery, were reported last June (OPD, 6/20/60), are thinking of building another such unit at Collier's Los Angeles facilities. On-stream date: late 1961.



INTERNATIONAL SALES MANAGER: William D. Gullickson, appointed manager of international sales by McLaughlin Gormley King Company, Minneapolis, Minn.

Both plants will use a patented process, developed by Union Oil Company of California, which converts an aromatic by-product of refineries into high-purity naphthalene.

RCI, Allied to Build PA Plants

The latest Collier-Tidewater venture, observers say, should be considered in the light of plans by Reichhold Chemicals, Inc., and Allied Chemical Corporation to build phthalic anhydride plants in the Los Angeles area.

Reichhold has slated a 10-million-pound PA unit at Azusa, and Allied plans to build a plant in the Los Angeles area with a capacity estimated by trade sources at 30 million pounds a year.

Since it takes about 1¼ pounds of naphthalene to produce one pound of PA, this would mean a market in Southern California for about 50 million pounds of naphthalene a year.

Sun Oil Company has slated a plant of 100 million pounds of petroleum naphthalene capacity a year, costing $8 million, at its Toledo, Ohio, refinery. And Ashland Oil & Refining Company is already under way on construction of 75-million-pound unit at Catlettsburg, Ky.

Current reports on the naphthalene

—*Continued on page 49*

Drug Trade in Peru Under Tighter Control

The Peruvian government has taken steps to bring down prices of imported pharmaceuticals and assure distribution of these products to the needy. In addition, certain specific benefits have been made available to the country's domestic manufacturers.

A new policy embodied in two Presidential decrees is expected to cause price

—*Continued on page 48*

Titanine Consolidates

Titanine, Inc., Union City, N.J., producer of fluorescent paints, has just completed consolidation of its manufacturing and research operations at a modern plant in that city. Titanine's paints are used by the Air Force and Navy on operational aircraft to help reduce mid-air collisions.

OPD Reports From Europe

Chemical Know-How to Reds: Europeans Are Out to Sew Up All Soviet Business They Can

Should the free world sell chemical know-how to the Communist bloc? The US chemical industry's oft-stated position is that this is a bad idea. Now OPD, in another first-hand report-in-depth from abroad, tells what Europeans think about this touchy question and why.

"We'll sell them what we can, of course, but we'd rather sell them processes." That is the sales philosophy of a top British chemical executive and the customer he's talking about is Soviet Russia, or any other country in the Communist bloc. This executive—as do his counterparts in other British firms and in French, Belgian, Swiss, Italian and German companies—brushes aside US objections to doing business with Communists as the eccentric luxury of prosperous wealth. He figures he can't afford the luxury.

While American industry continues to debate the propriety and the possibility of doing business with the Communists, European companies—with chemical firms in the van—are out to sew up as much of this business as possible.

Seek Business in Red Capitals

They're competing aggressively to sell the ministries in Moscow, Warsaw, Prague, Pankow and Peking as they are to find customers in Brazil and Africa or any other part of the world.

The clearest difference between US and European policy and practice, of course, centers around selling machinery equipment, plants, processes and know-how to Communist countries.

A rundown on some of the more important current Communist orders for chemical plants or processes in Europe shows almost every major country and company involved.

Most spectacular attempt to sell chemical processes to Communists, so far, is Imperial Chemical Industries, Ltd.'s exhibition of plastics and plastics processes this summer in Moscow and Leningrad which numbered among its crowds of visitors Nikita S. Khrushchev.

The Russians reportedly gave the company a list of twenty processes they were interested in and S. P. Chambers, chairman of ICI, makes no secret that his company "has been engaged upon selling processes to Iron Curtain countries."

ICI recently resumed negotiations with Poland, East Germany, Czechoslovakia

—*Continued on page 77*

AID TO GAF PRESIDENT: William Hanset, formerly vice-president of Vick Chemical Company's international division, who will join General Aniline & Film Corporation on Thursday (September 15) as assistant to the president of the New York concern.

Ammonia Use on Farms Soaring to 765,000 Tons

Agricultural Ammonia Institute is predicting that 765,000 tons of NH_3 will have been used for direct application last season when the returns are all in.

Jack F. Criswell, executive vice-president of the institute, reports that returns from the annual volume survey indicate a 12 percent increase for the first seven months of 1960 over the comparable period in 1959.

Better weather conditions and use of more educational meetings for farmers are cited as leading causes for volume gains in many areas. Greater advertising efforts and more local test plots are also deemed responsible for the increase in production.

Polypropylene Plant Set for the Netherlands

A new polypropylene plant is going up in the Netherlands. Owners will be a jointly-held company, which will erect and operate the unit in Rotterdam, in conjunction with the works of Shell Netherlands Raffinaderij N.V.

Backers of the joint company are two firms: the Dutch organization, Bataafse Petroleum Maatschappi N.V., and the Italian organization, Montecatini Soc. Gen. per l'Industria Mineraria e Chimica.

Those behind the new company boast that its success is assured by the experience of the Royal Dutch-Shell group, as well as the Montecatini organization, whose patents will be used in the plant of the new company.

Polypropylene products to be manufactured in the new plant will be sold in the Benelux countries by the companies of the Royal Dutch-Shell group through its existing organization.

Allied Plans Expansion For Caustic-Chlorine Unit

Demand from customers in the southeast has increased so much recently that Allied Chemical Corporation's Solvay Process Division plans an expansion of its mercury cell chlorine-caustic soda plant at Brunswick, Ga. This is the second such expansion since the plant was built in 1956.

Solvay says the new facilities will increase chlorine-caustic production capacity by about 100 tons a day.

In addition to its Brunswick unit, Solvay also has chlorine-caustic facilities at Syracuse, N. Y.; Baton Rouge, La., and Moundsville, W. Va.

Polyethylene's Place: On the Shelf for Containers

High-density polyethylene has its place on the shelf. The store shelf, that is.

A marketing survey, just concluded by Phillips Chemical Company, Bartlesville, Okla., indicates that the plastic, when used for containers, is finding increasing favor from the drug, toiletry, cosmetic and food people.

"For example," says Phillips, "if all the 590 million glass bottles used last year to package shampoos, hair tonics, dressings and colorings were replaced with high-density plastic containers, it is estimated that 32 million pounds of resin would be needed to produce these containers."

To make its point another way, Phillips says:

"By 1963, some 7 million pounds of the high-density plastic will be blown into containers replacing glass containers for toiletries, cosmetics, medicine and foods."

It is estimated, says Phillips, that 25 percent of the toiletries and cosmetics products now sold in glass and 15 percent of the items in the health and medicine fields that are packaged in glass, are logical customers for high density polythylene containers.

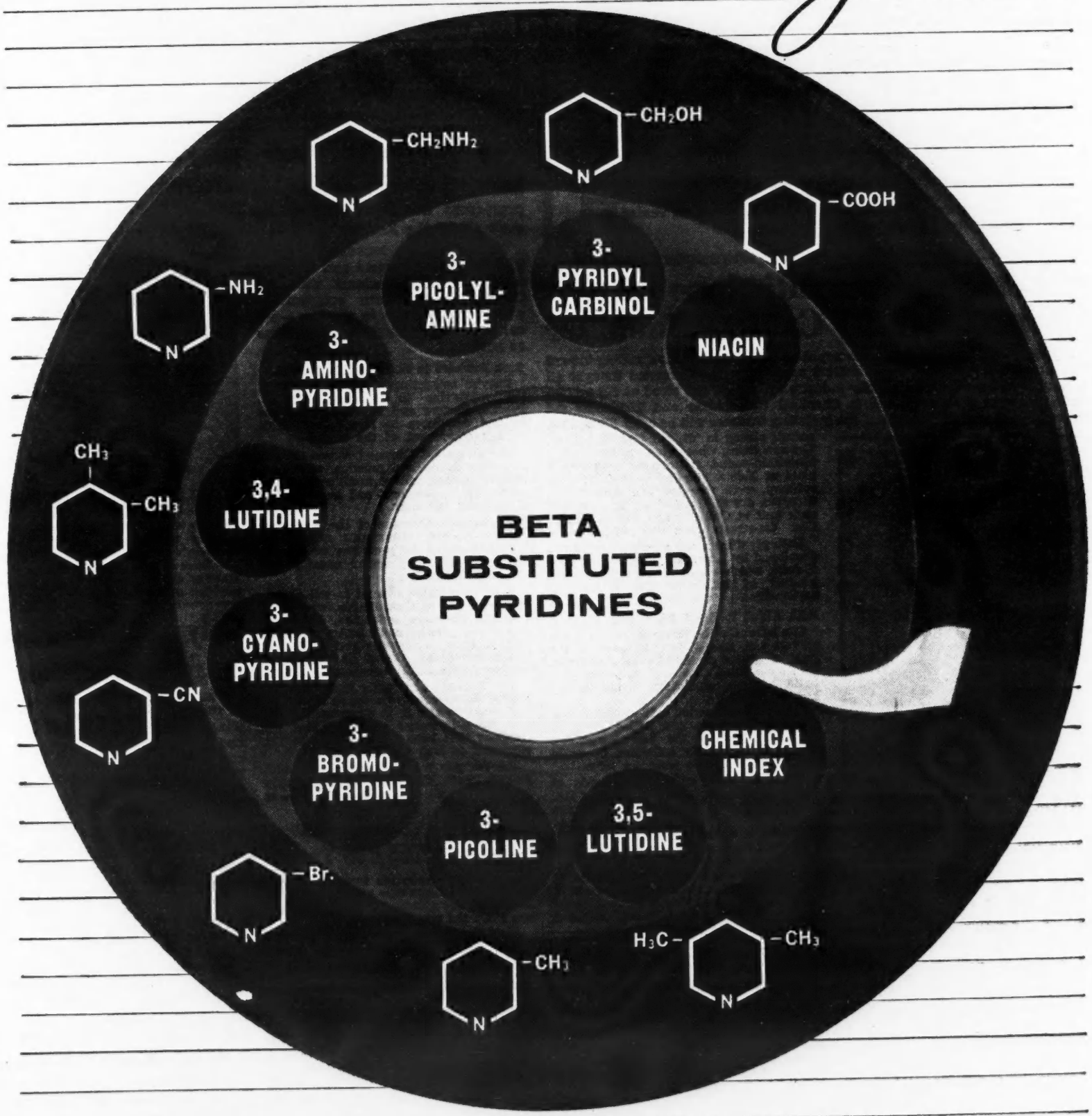
Last year, it is estimated that toiletries and cosmetics used 2 billion glass bottles, while medicine and health products used another 3 billion bottles.

High-density plastic containers already have replaced some glass bottles in these applications. One promising area is in liquid shampoos, because of the convenience of unbreakable plastic containers in the bathroom.

In the medicine and health field, many items now reach the market in high-density polyethylene containers. Included are rubbing alcohol, foot powder and

—*Continued on page 59*

call Reilly



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AID TO RESEARCH CHIEF: Dr. Charles K. Lawrence, appointed assistant to the director of research and development of Allied Chemical Corporation, New York.

Drug Sales Good; Earnings Should Be

Mounting sales of standard ethical and proprietary drugs, coupled with new products, point to further gains in earnings for leading drug concerns in 1960. Such is the opinion of Standard & Poor's Corporation, well-known New York investment experts.

Even with two strikes against them, the drug makers are set for bigger and better things, according to Standard & Poor's.

The strikes? For one thing they have had a poor second quarter, especially in the ethical line, where prices have been weak. But recently-introduced products should remedy this in the period ahead. And although the Kefauver hearings got under way again last week, no punitive legislation is expected, S&P says.

After a strong first quarter, during which the heavier than usual incidence of respiratory infections resulted in record sales for many companies, the June quarter showed a definite letdown. So recalls S&P in its latest outlook.

The schedule of new products slated for introduction in the remainder of 1960 is relatively light; but possibly lucrative interest will center on those added in the first half, Standard & Poor's says.

Overall, a gain of about 8 percent is

—*Continued on page 71*

Koppers Closing Down Everett, Mass., Operation

Koppers Company will discontinue operations of its tar products division at Everett, Mass., on September 30.

Creosote and creosote-coaltar solutions as well as various coaltar pitches formerly supplied from Everett will still be available at Koppers' Seaboard, N.J., plant and other plants which have been supplying these products. Inquiries should be directed to the company's sales office at 250 Stuart Street, Boston 16, Mass.

Food Additives Law Is Posing A Host of Bothersome Problems For Toxicology Researchers

The food additives law, which has opened up a veritable Pandora's Box of problems for technologists in industry and government alike, has many toxicologists burning the midnight oil to cope with the immense testing job called for in the legislation. This huge task is made no easier, Dr. Bernard L. Oser indicated in an address before the fifth International Congress on Nutrition last week, by the many difficult food additives questions that still remain to be answered.

One particularly bothersome problem, he told the Washington conference, is the safety level of 100 established in the law.

Dr. Oser, who is director of Food & Drug Research Laboratories, Inc., Maspeth, N.Y., cited specifically the Food & Drug Administration's ruling that "a food additive for use by man will not be granted a tolerance that will exceed 1/100th of the maximum amount demonstrated to be without harm to experimental animals."

100-Fold Safety Factor Criticized

"To justify the 100-fold safety factor on the ground that man is ten times as sensitive as other species to certain drugs and poisons, and that individuals in various states of health and disease may vary ten-fold in sensitivity, is pure rationalization," he contended.

"Suitable comparative data on relative species sensitivity are meager at best," Dr. Oser pointed out, "and are predicated largely on acute or subacute toxicity. The relationship could be entirely different under conditions of chronic or life-time dosage."

At any rate, he contended, the FDA regulation is "ambiguous and confusing" for a number of reasons:

- It does not specify the units in which the "maximum amount" is expressed. Is it as parts per million of test diet? Is it milligrams per kilogram of the animal's body weight?
- It does not make clear that the basis of expression should be the same under both the test and proposed use conditions.
- In the legal sense a "tolerance" is the allowable level in a particular food,

—*Continued on page 65*

DCAT Finishes Program For 70th Annual Meeting

Final arrangements have just been completed for the seventieth annual meeting of the Drug, Chemical & Allied Trades Association (a section of the New York Board of Trade) to be held at the Sagamore hotel, Bolton Landing, Lake George, N. Y., September 15 to 18.

Principal speakers at the business session Friday morning, September 16, will be Dr. Morris A. Jacobs, Commissioner of Hospitals of New York, and Dr. William B. Walsh, president of Project HOPE. Robert H. Kampschulte is business program chairman.

Dr. Jacobs will address the group on "Hospital Care of the Aged." "Industry's Part in Project HOPE" will be discussed by Dr. Walsh.

A few brief reports, including one by

—*Continued on page 49*

MARKET MANAGER: Arthur E. Irvine, named market manager for flexible packaging materials by Union Carbide Plastics Company, a division of Union Carbide Corporation, New York.

Rubber Products Get FDA Time Extensions

Food & Drug Administration has granted time extensions—until March 6, 1961—to some 200 substances migrating from rubber and rubber products used in food handling. In other actions, the agency has granted more time under the food additives law to four direct additives and eleven indirect additives.

The rubber product extensions include elastomers, vulcanizing materials (vulcanizing agents, accelerators, retarders and activators), protective agents (antioxidants and antiozonants), plasticizers, fillers (channel-processed carbon black and

—*Continued on page 58*

SOCMA Names Speaker

Synthetic Organic Chemical Manufacturers Association will hear a talk on "Political Education—A Modern Corporate Program," at its luncheon meeting tomorrow (September 13) in New York's Roosevelt hotel. Speaker will be Henry W. Hopwood, director of public relations for Republic Steel Corporation.

Petrochemicals Rate of Growth Seen Slowing Up

Growth of the petrochemical industry, which ran well over 10 percent a year in the last decade, will settle down to an annual rate of 7 to 9 percent during the next several years. That's the opinion of the Federal Reserve Bank of Dallas, expressed in a current review of the southwestern petrochemical industry.

Overcapacity, imports and changing raw materials costs are among the factors cited for this projected slowdown of the industry's expansion rate.

But despite these notes or pessimism, the review finds little to complain about in a 7-to-9-percent growth rate. And the long-term outlook, tied to the booming plastics industry, is highly favorable.

High-density polyethylene and epoxy resins are given as examples of chemicals in excess capacity. But overcapacity, it is added, is not uncommon in a growth industry.

Why the Chemical Overcapacity?

"Normally, it takes two to three years to complete a chemical plant, and extensive scale economics encourage producers to construct facilities with capacities well in excess of current sales potential."

The upshot is that producers already have the plants needed to cover market expansion during the next several years.

The increasingly competitive stance of foreign producers poses another problem for the domestic industry, according to the review.

This takes two forms. One, the US position in overseas markets, traditionally a strong one, is being pared by a splurge of petrochemical expansions the world over.

Two, it also appears likely that American imports of chemicals, which advanced 25 percent last year, will rise further as foreign producers (particularly Canada, western Europe and Japan) win new markets here with their increasingly low-cost products.

Turning to still another hurdle on the road to progress, the review notes that much of the rapid postwar development of petrochemicals has been based upon

—*Continued on page 76*

Chemical Buyers' Parley Slated for Chicago Oct. 27

Chemical Buyers Group of the National Association of Purchasing Agents will hold a fall conference October 27 at the Pick-Congress hotel in Chicago. The morning program will include these topics and speakers:

"The Impact of Future Imports Upon the American Economy," Raymond W. Barnett, assistant to the publisher of *Purchasing Week;* "Creating Commercial Friendship Through Trade Relations," L. T. Willison, director of trade relations for the Jones & Laughlin Steel Corporation.

"Chemical and Drug Industries from the

—*Continued on page 65*

Association Meetings

American Association of Textile Chemists & Colorists, national convention, Sheraton hotel, Philadelphia, October 6-8.

American Chemical Society, national meeting, New York, September 11-16.

American Coke & Coal Chemicals Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., October 17-18.

American Institute of Chemical Engineers, Mayo hotel, Tulsa, Okla., September 25-28.

American Mining Congress, convention and exposition, Convention Center, Las Vegas, Nev., October 10-13.

American Oil Chemists' Society, fall meeting, New Yorker hotel, New York, October 17-19.

American Tung Oil Association, annual convention, Edgewater Gulf hotel, Edgewater Park, Miss., September 28-29.

Armed Forces Chemical Association, annual meeting, Sheraton-Park hotel, Washington, D. C., September 15-16.

Association of Consulting Chemists & Chemical Engineers, annual meeting, Shelburne hotel, New York, October 25.

Canadian Agricultural Chemicals Association, annual meeting, Britannia hotel, Lake of Bays, Muskota, Ontario, September 12-14.

Chemical Buyers Group of National Association of Purchasing Agents, fall conference, Pick-Congress hotel, Chicago, October 27.

Chemical Market Research Association, Wentworth - by - the - Sea, Portsmouth, N. H., September 22-23; Pittsburgh Hilton hotel, Pittsburgh, Pa., November 9-10.

Commercial Chemical Development Association, joint meeting with the chemical economics division of the Chemical Institute of Canada, Queen Elizabeth hotel, Montreal, Canada, October 18.

Drug, Chemical & Allied Trades Association, annual meeting, Sagamore hotel, Bolton Landing, Lake George, N. Y., September 15-18.

Electrochemical Society, Shamrock hotel, Houston, Tex., October 9-13.

Federation of Societies for Paint Technology, annual meeting, Sherman hotel, Chicago, October 31-November 2.

Manufacturing Chemists Association, semi-annual meeting and midyear conference, Statler Hilton hotel, New York, November 22.

National Agricultural Chemicals Association, annual meeting, Del Coronado hotel, Coronado, Calif., September 27-29.

National Drug Trade Conference, annual meeting, Gramercy Park hotel, New York, December 16.

National Foreign Trade Council, national meeting, Waldorf-Astoria hotel, New York, November 14-16.

National Paint, Varnish & Lacquer Association, annual convention, Drake hotel, Chicago, October 27-29.

National Petroleum Association, annual meeting, Traymore hotel, Atlantic City, N. J., September 14-16.

Packaging Institute, annual national packaging forum, Statler-Hilton hotel, New York, October 31-November 2.

Parenteral Drug Association, annual convention, Statler hotel, New York, October 19-21.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 12-14.

Salesmen's Association of the American Chemical Industry, annual sales clinic, Roosevelt hotel, New York, November 14.

Society of Chemical Industry, American section, chemical industry medal award dinner, Waldorf-Astoria hotel, New York, October 21.

Society of the Plastics Industry, New England section conference, Wentworth-by-the-Sea, Portsmouth, N. H., October 13-14.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, September 13.

Toilet Goods Association, scientific section's winter meeting, Waldorf-Astoria hotel, New York November 30.

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Volume 178 September 12, 1960 No. 12

Economic Neighborliness

Time will be an essential and decisive factor in the satisfactory appraisal of the "Marshall Plan" program proposed by this country and accepted with some revisions and some signs of reluctance by the Inter-American Economic Conference. The basis of this promising proposal was a complex compromise comprising some measure of recognition of what President Eisenhower had requested of congress late in July, what was offered in critical opposition a week later by the Democratic whip in the senate, and a program laid before the lawmakers several days later by the Secretary of State.

Congress had gone somewhat and somehow in that general direction before going home to campaign. It approved the President's request for a half-billion-dollar authorization for development loans to Latin-American republics and an additional hundred million to help out Chile in its earthquake affliction. Both authorizations must be funded by appropriations next year.

The development loans will not be available to nations under sanctions by the Organization of American States. Under the "Marshall Plan" of cooperation toward "greater social progress and more balanced economic growth," Latin republics may be able to repay in "soft" domestic currencies or even released wholly of the obligation, depending on circumstances and US policy.

That is designed to take care politically of the economic needs of Latin America. But, if the program is to do the good that it should, it is imperative that due recognition be given to the necessity for dealing also commercially with those needs—an area in which the Soviets are doing their utmost to get in first, fast, far and "for keeps."

There is an encouraging note that such recognition is at least in the making in the recent news from Santiago, Chile, that three US copper companies are contemplating increases totaling four hundred million dollars in their operative investments in that country. At the other end, Chile's central bank has reduced the import guarantee deposit on mechanical equipment required for development of agricultural mineral, and industrial products with the objective of reducing costs and encouraging better maintenance of such facilities.

There was a political push for similar commercial ventures in resource-rich Argentina in the President's appointment several weeks ago of the Assistant Secretary of State for Inter-American Affairs to be ambassador to that country. Those who should be wise enough to see the commercial potentialities of relations with Latin Americans should get fully informed with reference to the Montevideo treaty in which seven of those countries have agreed to promote a progressive elimination over a period of not more than twelve years of customs duties on their essential trade with one another.

Those who have other than an abstract acquaintance with economic relations with Latin Americans—or any other peoples—know that they are not always what they should be socially. A commendable step toward the goal to which that points has been taken in the launching of the Inter-American Visitors Association, which has offices at 30 Rockefeller Plaza, New York. Business visitors, no less than sightseers and other tourists, can find such an organization helpful in various ways.

There is much to be learned, politically, commercially and socially — and to be applied with proper understanding—if the new program is to correct the reaction to previous procedures, as stated by the President of Ecuador:

"To obtain a loan it is necessary to submit a plan. This plan always is not completed because it lacks some sentences, commas or full stops. When all requirements are fulfilled, it is necessary to await the arrival of a technical mission. Later they send a US technician with a salary out of proportion and with all kinds of privileges that always create resistance in the national opinion. We are asking for money that we are going to pay back. We are ready to cooperate with the defense and freedom of the western world, but we demand the respect of the legitimate origins of our peoples and of the legitimate determination of our countries."

There is, in that comment, a most timely and very necessary lesson in the economic neighborliness that should be fundamental in all practices of what really is Pan-Americanism.

Re Petroleum Policies

The growing advocacy of bigger and better utilization of the nation's resources of tar sands and oil shales as sources of petroleum products is beginning to have an effect upon the economic appraisal of federal, regional and state governmental policies having to do with the nation's need for petroleum products in the meeting of even its normal requirements in energy. The quota systems, covering everything from well production to imports, present what is perhaps the most argued aspect of the subject as a whole; although the discussion of imports generally gets the more attention at higher levels, both industrial and governmental.

The major argument in favor of imports is that the best assurance against inability to meet the demands of national emergency is to retain the domestic oil resources in the ground. The supporters of the federal import-restriction policy argue that, in order to conserve that oil, its location must be known, and as the acquiring of that knowledge is a costly time-consuming undertaking, no practicable means of getting such assurance by industrial or governmental venture has been presented.

There have been suggestions that industrial exploration should be subsidized by the government and the discovered resources nationalized. Others argue that the activities of the Department of the Interior—some include the Army Engineers—could be utilized somewhat along the lines of the "hardened" storage plan of the Navy to protect oil supplies in time of crisis.

August 30 was a big day in the arguing about oil-imports. In an address to the mineral resources section of the American Bar Association, the Under-Secretary of the Interior reviewed the development of the federal import policy in informative detail and defended its various characteristics against all sorts of criticism that had been made against them. He also "placed the import program in its proper perspective" by outlining its objectives and its limitations, declaring that it "must be viewed, not as an isolated program, but as one component of a many-faced petroleum policy directly related to national security."

The same group was told by an executive of the internationally operating division of a large domestic oil company that "importing foreign oil is in the best interests of domestic refiners and consumers"—he had nothing to say about producers of crude.

"Without the benefits of foreign oil," he said, "the United States could face a deficit sooner than we think. This could result in higher energy costs which would place our country in a serious competitive disadvantage with other nations. Specialty crudes are produced abroad which are ideally suited to meet requirements of American refiners."

All of which, although quite informative with respect to lines of thinking, left the argument just that and no more, and contributed nothing in any way to the remedying of the conditions reported quite recently in the public press under the following headlines: "Oil Men's Stake in the Election: Depletion," "Bulging Inventories Spark Oil Cutbacks."

OPD'S BOOKSHELF

Plastics Unlimited

POLYSTYRENE* is the latest volume in Reinhold's continuing series on plastics applications. All are compact, not too long, and designed to provide a simplified yet technically accurate introduction to the chemistry, properties, manufacture and use of various resinous materials.

In the current volume, major emphasis is on applications of polystyrene materials by injection molding, by extrusion, by vacuum forming and as a foam. Included is latest information on application of the plastic in appliances, electronics, building, packaging, housewares, toys, novelties, shoe heels, transportation and furniture.

Though designed primarily for molders, fabricators and end-users of polystyrene, the book contains a great deal of information of interest to research and technical men. For example, there is presented a new approach to the evaluation of the effects of polymerization temperature on molecular weight.

*POLYSTYRENE. By William C. Teach and George C. Kiessling. 176 pages. Reinhold Publishing Company, New York.

All About Foraminifera

This book, entitled ECOLOGY AND DISTRIBUTION OF RECENT FORAMINIFERA*, will be of direct interest to geologists in the oil industry, to oceanographers and marine ecologists because it is a summary and evaluation of research on foraminifera.

Since these small calcareous protozoa live in sea water, at death their shells sink to the bottom of the sea. They have existed for millions of years and their shells tell us a great deal about sea floors, the temperature of ancient seas, the location of oil, the movement of glaciers and other natural phenomena.

The book is designed to bring all research work and scattered information together from various media, and unify it into a manageable whole.

*ECOLOGY AND DISTRIBUTION OF RECENT FORAMINIFERA. By Fred B. Phleger. Cloth. 297 pages. Baltimore, Md. The Johns Hopkins Press. $7.50.

Looking Backward

Here is the story of National Gypsum Company, commemoratng the firm's thirty-fifth anniversary. DESIGN FOR GROWTH,* showing how a few men with an idea built an infant plant into a great enterprise, is just such a design, with the implication that today's fledgling firms can learn from National Gypsum's success story.

*DESIGN FOR GROWTH. By Dean Richmond. 142 pages. Baker, Jones, Hausauer, Inc., Buffalo, N. Y.

Washington Talks It Over

Food & Drug Administration Faces a Huge Job in Policing Newest Chemical Control Laws: The Color Additives Amendment and the Hazardous Substances Labeling Measure.

By Ralph L. Cherry
Washington Editor

Food & Drug Administration has a big policing job cut out for itself as a result of the two new control laws passed last session by congress—the color additives amendment and the hazardous substances labeling law. And the agency isn't too sure that it can do an adequate job with the limited funds made available.

The use of colors by the food, drug and cosmetic industries is far greater than might normally be realized and the new plan of control figures to be substantially more costly to administer than the old certified coaltar color law.

Officials estimate that there are about 33,000 manufacturers producing between 250,000 and 300,000 products which will fall under the new amendment. Together with the food additives law, this could well turn out to be the biggest function of the agency, overshadowing even the regulation of the drug industry.

Plans are to rely heavily upon the factory inspection authority in enforcing the color law. FDA inspectors will not only need to ascertain that listed colors are being used, as in the past, but will also need to learn how much of a particular color is being used and in what products.

This will be accomplished by factory inspections, officials report, to learn the quantities of colors used, the mixing procedures and other pertinent information.

In addition, increased attention will be given to getting samples of finished products for laboratory analysis and this in itself presents a big headache to the agency. One of the very difficult problems is to develop rapid and accurate methods of analysis to isolate and measure the amounts of color in a wide variety of products. Highly complex scientific equipment will be needed for this work.

Enforcement of the hazardous articles labeling law will be no snap for FDA either. Although this law will not require the detailed scientific approaches of the color additives and food additives law, the products involved are just as many.

Officials estimate that there are from 5,000 to 8,000 firms which will be subject to this new law and they produce about 300,000 different products whose labels will have to be reviewed.

Congress provided only $1.2 million to get the enforcement going, and it is almost certain that more money will be needed before the next regular appropriation is at hand.

CHEMICALS AND RELATED MATERIALS

All matters under this heading fully protected by copyright.

Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, September 9 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde 99%, dms., c.l., works. lb. .12 - —
dms., l.c.l., works ..... lb. .13½- —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP, bbls., 225-lb. dms., any quantity lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs.10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd 100 lbs.22.00 -23.00
tech., dms., c.l., dlvd.... 100 lbs.13.75 - —
dms., l.c.l., dlvd..... 100 lbs.15.25 - —
tanks, dlvd. ..... 100 lbs.10.00 - —
USP, cbys., dlvd ..... 100 lbs.31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., l.c.l., dlvd ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l. dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd .. lb. .10½- —
dms., l.c.l., dlvd ..... lb. .12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., t.l., dlvd .. lb. .35 - —
dms., l.c.l., dlvd ..... lb. .36½- .37
tanks, dlvd. ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns., dms ..... lb. .42 - 1.30
Tech., dms., c.l., works ..... lb. .47 - —
dms., l.c.l., works ..... lb. .47¾- —
tanks, works ..... lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.24 - —
dms., 5,000-lb. lots, same basis lb. 1.30 - 1.45
dms., smaller lots, same basis lb. 1.35 - 1.63
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ..... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP, 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56½- —
(Pink and green granulations 5c. per lb. higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver, lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .36 - —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½- —
dms., l.c.l., l.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, dms., t.l., frt. prepaid lb. .41½- —
tanks, same basis ..... lb. .39 - —
tech., polymerization, dms., t.l., f.o.b. shipping point lb. .42½- —
tanks, same basis ..... lb. .40 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd..... lb. .32¼- —
bgs., l.c.l., dlvd..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.65 - 2.75
powd., 30 mesh., fib., dms lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis .... lb.10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l., dlvd lb. .99 - —
fib. dms., l.c.l., dlvd..... lb. 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs ..... lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb.28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld. lb. 6.50 - 6.55
2½% dms. frt. alld..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd..... lb. .32½- —
dms., l.c.l., dlvd..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works, lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd.... lb. .17½- —
dms., l.c.l., dlvd..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms..... lb. .70 - 1.30
Aloe, Cape, cs..... lb. .30 - .35
powd., cs. ..... lb. .60 - .65
Curacao, kgs. ..... lb. .60 - .70
powd., kgs. ..... lb. .69 - —
Aloin, USP, bbls., dms., kgs.... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works..100 lbs. 4.30 - —
Lump, dms., works.....100 lbs. 5.05 - —
Powd., dms., works.....100 lbs. 5.20 - —
USP, burnt., dms..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works.....100 lbs. 5.30 - —
Powd., dms., works.....100 lbs. 5.45 - —
USP, burnt., dms..... lb. .20 - .21
USP, hydrous, dms..... lb. .07¾- .08
Alum, potash-chrome, dms..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works ..... lb. .05½- .06¼
Aluminum acetate, basic soln., 24%, bbls., l.c.l, works..lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald. lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works..100 lbs.21.00 - —
dms., l.c.l., works.....100 lbs.21.50 - —
Soln., 32° cbys., c.l., works.... lb. .0495- —
cbys., l.c.l., works..... lb. .0570- .1093
tanks, works .....100 lbs. 3.95 - —
NF, gran., dms., works .... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works. lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80%..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, l.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald. lb. .0365- —
bgs., 20,000-40,000 lb. lots, same basis lb. .039 - —
bgs., 2,000-20,000 lb. lots, same basis lb. .049 - —
bulk, c.l., same basis .... lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works. lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 - —
8-9½% Al_2O_3, fib. dms., works. lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. alld lb. .2810- —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .71 - —
Standard grade, dms ..... lb. .48½- —
Aluminum powder, lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms ..... lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs. 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more.
Aluminum resinate, precip., 3.4% Al, dms lb. .40¼- —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis..... ton.40.00 - —
lump, bgs., c.l., same basis..ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald..100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works..... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld..lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted..lb. 1.35 - 1.60
Aminoazotoluene base, bbls., 100% basis ..lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works..lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 8.10 - —
p-Aminodiphenylamine, tech., solid, dms., frt. alld..lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd..lb. .475 - —
dms., l.c.l., dlvd..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld..lb. .44 - —
dms., l.c.l., frt. alld..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld..lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld. lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted..lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies..ton.84.00 - —
refrigeration, tanks, works, frt. equald. E. of Rockies..ton.94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald..100 lbs. 8.25 - —
bgs., l.c.l., same basis..100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms. lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works..lb. 1.00 - —
fib dms. 1,000-lb. lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works ton.325 - —
dms., ton lots, ex whse. 100 lbs.20.40 - —
dms., smaller lots, ex whse. 100 lbs.21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works..100 lbs. 7.00 - —
dms., l.c.l., works.....100 lbs. 9.00 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
a.p.a.	available phosphoric acid	e.p.	end point	Pac.	Pacific
		equald.	equalized	pf.	proof
approx.	approximately	exp.	expressed	phos.	phosphate
artif.	artificial	Ext.	external	photo.	photographic
ASTM	American Society for Testing Materials	F.	fahrenheit	pkgs.	packages
		ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
Atl.	Atlantic	f.f.c.	free from chlorine	prod.	producer
Be.	Baume	fib.	fiber	pt.	point
bbls.	barrels	f.o.b.	free on board	pulv.	pulverized
bgs.	bags	f.p.a.	free of prussic acid	purif.	purified
bls.	bales	frt.	freight	redist.	redistilled
bots.	bottles	gal.	gallon	refd.	refined
b.p.	boiling point	gran.	granular	refy.	refinery
b.p.l.	bone phosphate of lime	grd.	ground	reg.	regular
		i.&a.	iron and aluminum	resub.	resublimed
b.r.	boiling range	i.b.p.	initial boiling point	ret.	returnable
bxs.	boxes	imp.	imported	SD	specially denatured
C.	centigrade	incl.	included	s.d.	single distilled
cbys.	carboys	indust.	industrial	S E.	southeast
CD	completely denatured	kgs.	kegs	sec.	secondary
		l-	laevo	secs.	seconds
c.i.f.	cost, insurance, freight	lacq.	lacquer	s.g.	specific gravity
		lb.	pound	shipt.	shipment
cks.	casks	l.c.l.	less carlots	soln.	solution
c.l.	carlots	l.t.l.	less truckload	s.u.	standard unit
cns.	cans	liq.	liquid	syn.	synthetic
coml.	commercial	mfrs.	manufacturers	tanks.	railroad tankcars
conc.	concentrated	m-	meta	tech.	technical
CP	chemically pure	m.a.p.	mixed aniline point	tert-	tertiary
cps.	centipoises			t.l.	truckloads
cryst.	crystalline	min.	minimum	t.w.	tankwagons
cs.	cases	m.p.	melting point	USP	U. S. Pharmacopoeia
ctns.	cartons	N-	nitrogen		
cyls.	cylinders	n-	normal	vis.	viscosity
d-	dextro	nat.	natural	VM&P	varnish makers & painters
dbl.	double	neut.	neutral		
denat.	denatured	NF	National Formulary	W.	west
dest-dist.	destructively—distilled			whse.	warehouse
dl-	dextro-laevo	NNR	New and Nonofficial Remedies	w.w.	water-white
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Ammonium bichromate, dms., works	lb.	.43	.43
Ammonium bifluoride, dms., divd	lb.	.2145	.2245
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald	lb.	.44	—
dms., l.c.l., same basis	lb.	.46	—
Ammonium carbonate, USP, lump, dms., c.l.	lb.	.15½	—
Ammonium chloride, white, tech., fine gran., bgs., c.l., works. 100 lbs.		6.00	—
bgs., l.c.l., works	100 lbs.	8.00	8.45
USP, gran., 250-lb. dm	lb.	.17¼	—
Ammonium citrate, dibasic, 250-lb. dm, f.o.b. works	lb.	.77	—
Ammonium dichromate (see Ammonium bichromate)			
Ammonium fluoride (see Ammonium bifluoride)			
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E	lb.	.43	—
Ammonium hydroxide (see Ammonia aqeous).			
Ammonium iodide, NF, 25-lb. jar, f.o.b. works	lb.	4.26	—
Ammonium lauryl sulfate, dms., c.l., frt. alld.	lb.	.20½	—
dms., l.t.l., frt. alld	lb	.21½	—
tanks, frt. alld	lb.	.19½	—
Ammonium lignin sulfonate, bgs., c.l., works	100 lbs.	3.25	—
bgs., l.c.l., works	100 lbs.	3.40	3.65
Ammonium linoleate, 80%, dms., works	lb.	.50	.55
Ammonium molybdate, CP, cryst., 400- lb. dms., 15,000-lbs. works.	lb.	1.22	—
400-lb. dms., 2,000-lb. contracts, works	lb.	1.23	—
400-lb. dms., works	lb.	1.24	—
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works	ton.	64.00	—
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va	ton.	48.00	—
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price	ton.	64.00	—
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works E	lb.	.28½	—
Tech., powd., 200-lb. dm., same basis	lb.	.28½	—
Ammonium pentaborate, gran., bgs., c.l., works	ton.	193.00	—
bgs., ton lots, ex whse	100 lbs.	14.23	—
bgs., smaller lots, ex whse.	100 lbs.	15.48	17.48
Ammonium pentaborate powder $10 per ton higher in bags.			
Ammonium persulfate, tech., dms., 10-ton lots or more, works	lb.	.18	—
dms., smaller lots, works	lb.	.20	.23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald	lb.	.09¼	—
bgs., l.c.l., same basis	lb.	.10	—
Dibasic, NF, V, bbls., dms	lb.	.46	—
Dibasic, tech., bgs., c.l., works, frt. alld	lb.	.09¼	—
Ammonium silicofluoride, dms., works	lb.	.12½	.13¾
Ammonium sulfamate, bgs., c.l., t.l., works	lb.	.19	—
bgs., l.c.l., works	lb.	.20½	.27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price	ton.	32.00	—
Ammonium sulfate, standard, gran., purif., c.l., 100-lb. bgs., f.o.b. works	lb.	.08¼	—
Large granular, bulk, c.l., works.	ton.	35.00	—
bgs., c.l., works	ton.	40.00	—
Tech., bulk, c.l., t.l., works	ton.	52.00	—
bgs., c.l., t.l., works	ton.	56.00	—
bgs., l.c.l., l.t.l., works	100 lbs.	3.20	5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis.	ton.	160.00	—
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).			
Ammonium thiocyanate, tech., cryst., dms., c.l., works	lb.	.20	—
dms., l.c.l., works	lb.	.22	.26
Tech. soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content	lb.	.17¼	—
Ammonium thioglycolate, comi., 55-gal. dms., ton lots, 100% basis	lb.	1.15	—
d-Amphetamine hydrochloride, monobasic, dms	lb.	17.50	23.50
dl-Amphetamine hydrochloride, dibasic, dms	lb.	4.50	6.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots	lb.	15.00	—
dl-Amphetamine phosphate, dms.	lb.	4.20	5.60
d-Amphetamine sulfate, fib. dms.	lb.	15.00	17.00
dl-Amphetamine sulfate, fib. dms.,	lb.	4.20	5.60
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies	lb.	.18¼	.19
dms., l.c.l., same basis	lb.	.20	.20½
tanks, same basis	lb.	.16	.16½
Amyl acetate, ex pentane, reg., dms., c.l., divd	lb.	.19	—
dms., l.c.l., divd.	lb.	.21½	—
tanks, divd.	lb.	.16½	—
tech., dms., c.l., divd.	lb.	.17	—
dms., l.c.l., divd.	lb.	.18½	—
tanks, divd.	lb.	.14½	—
Amyl acetate, syn., oxo process, dms., c.l., divd.	lb.	.19	—
dms., c.l., divd.	lb.	.20½	—
tanks, divd.	lb.	.16½	—
Amyl alcohol, ex fusel oil (see Fusel oil refd).			
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., divd	lb.	.43½	—
refd., ACS grade, dms., l.c.l., divd	lb.	.45½	—
ex pentane, mixed amyls, dms., c.l., frt. alld	lb.	.19	—
dms., l.c.l., frt. alld	lb.	.20½	—
tanks, frt. alld.	lb.	.16½	—
Amyl alcohol, primary, dms., c.l., frt. alld	lb.	.20¼	—
dms., l.c.l., frt. alld	lb.	.21¾	—
tanks, frt. alld	lb.	.17¾	—
Sec-synthetic, dms., c.l., works, frt. alld	lb.	.19	—
dms., l.c.l., same basis	lb.	.20½	—
tanks, same basis	lb.	.17	—
Tert-synthetic, dms., c.l., frt. alld. E	lb.	.17	—
dms., l.c.l., frt. alld. E.	lb.	.18½	—
tanks, frt. alld. E.	lb.	.14½	—
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works	lb.	.41¼	—
dms., l.c.l., works	lb.	.43	—
tanks, works	lb.	.39½	—
2-pentanol, dms., c.l., works	lb.	.65	—
dms., l.c.l., works	lb.	.70	—
tanks, works	lb.	.60	—
Amyl n-butyrate, dms.	lb.	1.00	1.25
Amyl cinnamic aldehyde, dms	lb.	1.70	2.20
p-tert Amyl phenol, dms., c.l., works.	lb.	.26¾	—
dms., l.c.l., works	lb.	.27¾	—
Amyl salicylate, cns., dms.	lb.	.71	—
Amyris oil, dms.	lb.	1.55	—
Anethol, tech., dms.	lb.	.80	.92
USP, cns., dms.	lb.	1.05	—
Angelica root, bls	lb.	.85	.90
Angelica root oil, bots	lb.	120.00	140.00
Angelica seed oil, bots	lb.	120.00	130.00
Aniline dms., c.l., frt. alld	lb.	.20	—
dms., l.c.l., frt. alld	lb.	.21	—
tanks, frt. alld.	lb.	.18	—
Aniline oil (see Aniline).			
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld.	lb.	.33	—
dms., l.c.l., same basis	lb.	.35	—
Anise oil, USP, dms.	lb.	1.75	3.00
Anise seed, Mexican, bgs	lb.	.24	—
Spanish, bgs.	lb.	.24	—
Anisic aldehyde, dms	lb.	1.50	2.20
o-Anisidine, dms., c.l., frt. alld.	lb.	.80	—
dms., l.c.l., same basis	lb.	.82	—
tanks, same basis	lb.	.78	—
p-Anisidine, dms., works	lb.	.97	—
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works	lb.	.42½	—
dms., l.c.l., minimum shipment 1,000 lbs., same basis	lb.	.45	—
Anthranilic acid, 99%, 150-lb. dms., divd	lb.	1.15	—
Anthraquinone, 99.5%, bbls., c.l., frt alld.	lb.	.83	—
bbls., l.c.l., same basis	lb.	.86	—
Electrical grade, bbls., l.c.l., same basis	lb.	1.10	—
Antimony butter (see Antimony trichloride).			
Antimony metal, bulk, c.l., mines.	lb.	.29	—
cs., c.l., mines	lb.	.29½	—
Antimony oxide, bgs., c.l., frt. alld.	lb.	.26½	—
bgs., l.c.l., frt. alld.	lb.	.28	—
Prices of antimony oxide are 2% higher west of the Rockies.			
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd	lb.	.23	—
bgs., smaller lots, dlvd	lb.	.24	.26
Antimony trichloride, anhyd., solid, pails, c.l., works	lb.	.41	—
pails, l.c.l., works	lb.	.43	—
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E	lb.	.69½	—
USP, powd., 250-lb. dm., same basis	lb.	.74½	—
Apomorphine hydrochloride, USP, bots., 25-oz. lots	oz.	35.00	—
Apricot kernel oil, USP, dms	lb.	.55	.70
Arabic gum, amber sorts, 10 bgs.	lb.	.27	—
USP, powd., bbls.	lb.	.31	.34
Areca nuts, powd., bbls.	lb.	.13	—
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more	oz.	4.00	—
l-Arginine, free base, dms., 10-kilo lots or more	kilo.	90.00	—
l-Arginine glutamate, dms., 10-kilo lots or more	kilo.	60.00	—
l-Arginine monohydrochloride, dms., 10-kilo lots or more	kilo.	60.00	—
Arnica flowers (true Montana), bls.	lb.	.75	—
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).			
Arsenic, crude (95%), bulk, c.l., works	lb.	.016	—
bbls., c.l., works	lb.	.0.31	—
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works	lb.	.48	—
Arsenic, white, powd., bbls., c.l., works	lb.	.04½	—
bbls., l.c.l., works	lb.	.06½	.07½
Arsenous acid, tech. (see Arsenic, white).			
Arsenous acid, USP (see Arsenic trioxide).			
Arylid maroons, deep shades, bbls.	lb.	3.70	—
Light shades, bbls.	lb.	2.85	—
Asafetida gum, cns	lb.	.38	.40
Powd., bbls., dms	lb.	.75	.80
Asbestine (see Talc, fibrous, New York).			
Asbestos, Canadian crude 6D, c.l. (30 tons), mines	ton.	86.00	—
7D, c.l. (30 tons), mines	ton.	75.00	—
7F, c.l. (30 tons), mines	ton.	71.00	—
7H, c.l. (30 tons), mines	ton.	61.00	—
7K, c.l. (30 tons), mines	ton.	50.00	—
7M, c.l. (30 tons), mines	ton.	44.00	—
7R, c.l. (30 tons), mines	ton.	43.00	—
7RF, c.l. (30 tons), mines	ton.	44.00	—
7T, c.l. (30 tons), mines	ton.	41.00	—
7TF, c.l. (30 tons), mines	ton.	44.00	—
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.			
Ascorbic acid, USP, dms., 100-kilos.	kilo.	7.33	—
dms., less than 100-kilos	kilo.	7.75	—
Ash, black (see Barium sulfide).			
Asphalt, gilsonite, black jet, bgs., c.l., mines	ton.	43.00	—
ex-whse, 5 tons or more, N. Y., N. J	ton.	89.50	—
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines.	ton.	46.00	—
270°-295°F. fusing pt., bgs., c.l., mines	ton.	43.00	—
Asphalt, petroleum, cut-back, tanks, tankwagon, refy	gal.	.09½	—
emulsion, tanks, tankwagon, refy.	gal.	.09½	—
steam-refd., 50-80 penetration, tanks, tankwagon, refy.	ton.	21.00	—
85-300 penetration, tanks, tankwagon, refy	ton.	20.00	—

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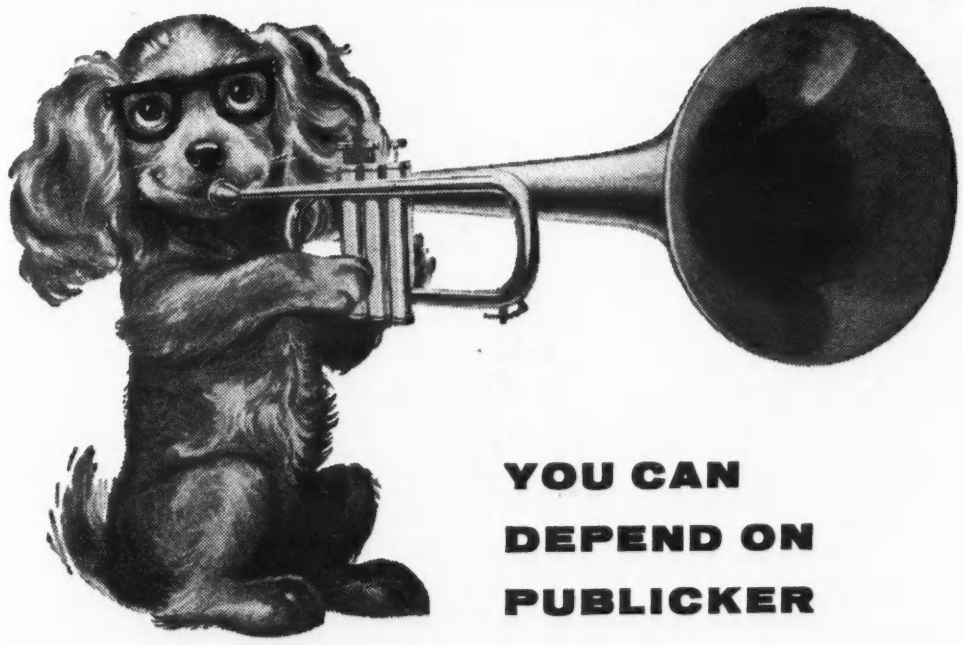

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★ *Acetic Acid* ★ *Amyl Acetate* ★ *Refined Fusel Oil* ★ *Proprietary Solvent*

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Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. 5.75 - 7.50
Atropine sulfate USP, bots ..... oz. 5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd. ..... lb. .40 - —
bgs., ton lots, same basis ..... lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 - —
less than 1,000,000,000 units. 50,000 units. .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs lb. 1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride, anhyd., bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works, 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.t.l., frt. equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald .100 lbs.11.25 - —
bgs., l.c.l., frt. equald .100 lbs.11.75 - —

Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd lb. .16 - —
bbls., l.c.l., l.t.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 - —
dms., l.c.l., l.t.l., frt. equald ton.285.00 - —
Barium peroxide, dms., frt. equald. lb .20 - —
Barium stearate, ctns., c.l., frt. alld. lb. .41 - —
ctns., l.c.l, same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19¼ - —
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., l.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs., mines ton 30.00 - —
95-75%, bgs., mines ton.30 00 - —
white, water-grd., paper bgs., c.l., St. Louis ton.60.00 -60.25
paper bgs., ex whse., New York ton 84.85 - —
Battery acid, cbys., c.l., works E. 100 lbs. 2.35 - —
cbys, l.c.l., works, E ..... 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ton. 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55%, cns lb. 2.40 - 2.70
55-60%, cns. lb. 2.55 - —
NF, West Indian, 50-55%, cns. dms. lb. 2.50 - —
Bayberry wax, bgs. lb. .65 - .70

Beeswax, crude, African, bgs. lb. .52 - .54
Brazilian, bgs. lb. .55 - .56
Central American, bgs. lb. .53 - —
Chilean, bgs. lb. .55 - .56
Refd., USP, bleached white, bricks, 100-lb. ctns lb. .69 - .71
white, slabs, 100-lb. ctns lb. .68 - .70
yellow, bricks, 100-lb. ctns lb. .59 - .61
yellow, slabs, 100-lb. ctns lb. .58 - .60
Belladonna leaf, bls. lb. .24 - .26
Belladonna root, bls. lb. .28 - .35
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots, ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .80 - 1.05
Tech., dms., c.l., t.l. lb. .47 - —
dms., l.c.l. lb. .48 - —
Benzene, pure or nitration, tanks, works:
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal. .34 - —
Houston, Tex. gal. .34 - .40
Johnstown, Pa gal. .34 - —
Benzene, pure or nitration, tanks, works:
Lackawanna, N. Y. gal. .34 - —
Lone Star, Tex. gal. .34 - —
Loraine, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Sparrows Point, Md. gal. .34 - —
Syracuse, N. Y. gal. .34 - —
Terre Haute, Ind. gal. .34 - —
Youngstown, Ohio gal. .34 - —

Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .25 - .37
dms., l.t.l., same basis lb. .29 - .41
tanks, same basis lb. .21 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 - —

BENZOL

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. lb. .32 - —
Benzophenone, dms. lb. 1.40 - 1.65
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis lb. .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 - 1.08
Benzyl acetate, f.f.e., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech., dms., dlvd lb. .42½ - .65
Benzyl benzoate, USP, 40-lb. dms lb. .64 - —
Benzyl chloride, tech., cbys., dms., c.l. works, frt equald lb. .22½ - .25⅛
cbys., dms., l.c.l., same basis lb. .23½ - .25⅛
tanktrucks, dlvd. Metropolitan area lb. .21 - —

A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices are ½c. lower.

Benzyl cinnamate, cns. lb 3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis lb. 1.35 - —
1-11 dms., same basis lb. 1.90 - —
Benzyl formate, cns. lb. 1.85 2.10
Benzyl isoeugenol, cns lb. 9.25 - —
Benzyl propionate, bots. lb. 1.35 - 1.65
Benzyl salicylate, bots lb. 1.50 - 1.85
Benzylidine acetone, bots. lb. 1.75 - 1.80
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns lb 56.50 - —
Berberine hydrochloride, bots lb.56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b.g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethyinaphthalene (see Methylnaphthalene)
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphtholamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine)
BHC (see Benzene hexachloride, tech.).
Biotin, cryst. bots gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00
Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms. lb. 4.60 - 4.65
Bismuth metal bxs., ton lots lb. 2.25 - —
Bismuth nitrate, cryst., 250-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.42 - —
Bismuth subcarbonate, USP, 150-lb. dm lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works lb. 4.43 - —
Bismuth subiodide fib dms lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works lb. 3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b. works lb. 4.25 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .29½ - —
bgs., c.l., t.l., less than 70,000 lbs., same basis lb. .30 - —
bgs., l.c.l., same basis lb. .31 - —
Blackberry root bark, bls. lb. .50 - .55

BLACK PIGMENTS

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton.160.00 - —
bgs., l.c.l., works ton.170.00 - —
bgs., l.c.l., New York whse ton.215.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton. 5.50 - —
Bloodroot, bls. lb. .75 - .80

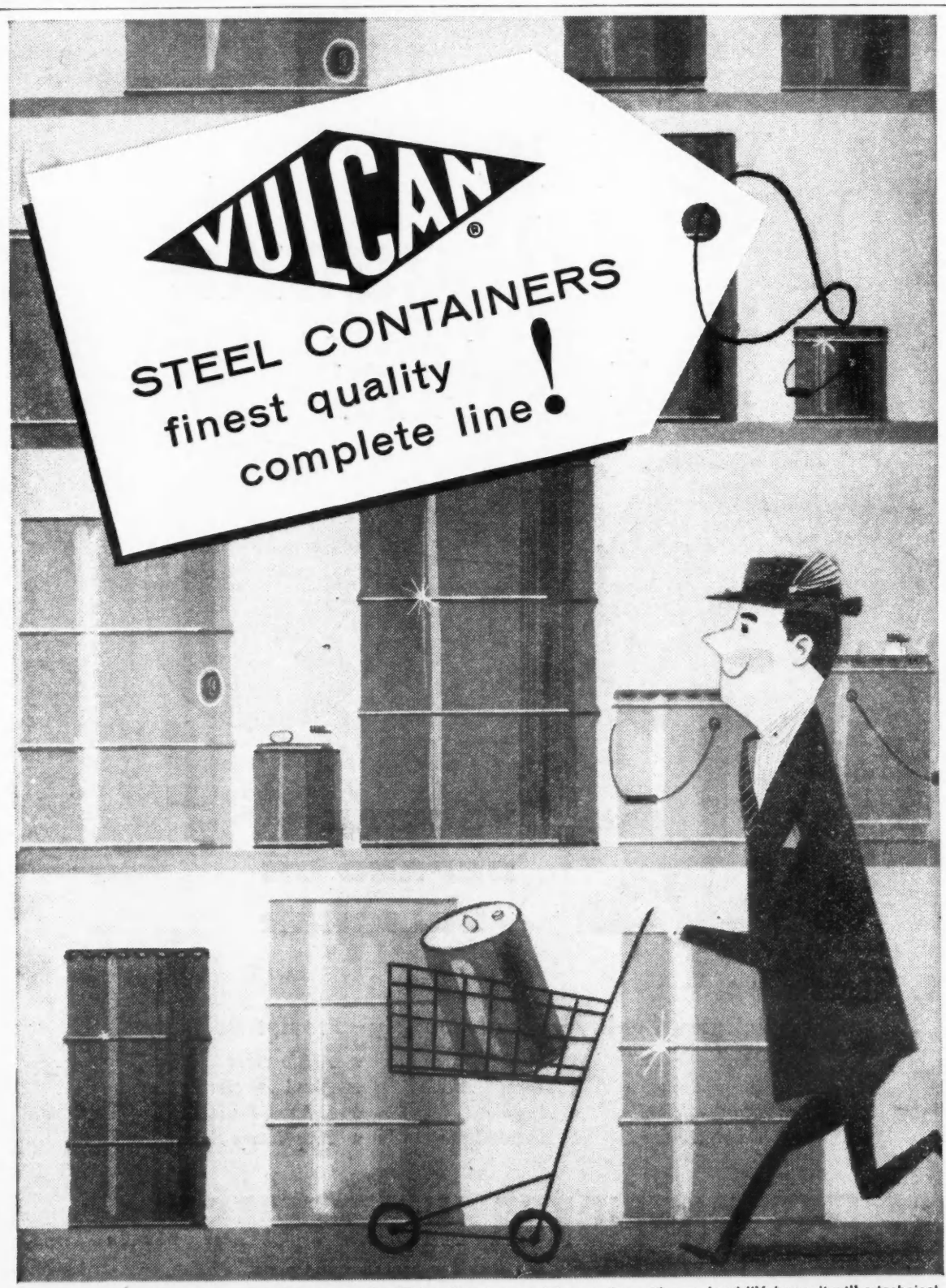
BLUE PIGMENTS

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms. lb. 2.10 - —
Peruvian, dms. lb. 1.70 - —
BON acid maroons, pure, bbls lb. 1.75 - —
Resinated, bbls. lb. 1.50 - —
Bone black, dms., c.l., frt. alld. lb. .1750- .2225
l.c.l., works lb. .1950- .2425

Pacific coast bone black prices 3¼c. per lb. higher.

Bonemeal, steamed, works, E ton.80.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate precip. (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.42 - —
bgs., smaller lots, same basis 100 lbs. 8.67 -10.67
bulk, c.l., works ton.83.00 - —



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Borax, tech., gran., decahydrate, 99½%, bgs., c.l., works. ton 50.00 • —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.32 • —
bgs., smaller lots, same basis. 100 lbs. 6.57 • 8.57
bulk, c.l., works ton. 43.50 • —
pentahydrate, 99½%, bgs., c.l., works ton. 64.50 • —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.05 • —
bgs., smaller lots, same basis 100 lbs. 7.30 • 9.30
bulk, c.l., works ton. 58.00 • —
USP, powd., bgs., c.l., works. ton. 54.00 • —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.45 • —
bgs., smaller lots, same basis. 100 lbs. 7.70 • 9.70
Bordeaux powder, tribasic, bgs., c.l., dlvd. lb. .24 • —
bgs., l.c.l., same basis lb. .26 • —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton. 335.00 • —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 19.62 • —
bgs., smaller lots, same basis. 100 lbs. 20.87 -22.87
cryst., 99.9%, bgs., c.l., works. ton. 163.50 • —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 11.05 • —
bgs., smaller lots, same basis. 100 lbs. 12.30 -14.30
Boric acid, tech., cryst., 99.9%, dms., c.l., works ton. 188.50 • —
dms., ton lots, ex whse., New York or Chicago. 100 lbs. 12.30 • —
bgs., smaller lots, same basis 100 lbs. 13.05 • —
gran., 99.9%, bgs., c.l., works. ton. 112.00 • —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.47 • —
bgs., smaller lots, same basis. ton. 174.25 • —
dms., c.l., works ton. 137.00 • —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 9.72 • —
dms., smaller lots, same basis 100 lbs. 10.47 • —
bulk, c.l., works ton. 106.00 • —
powd., bgs., ton lots, ex whse., New York or Chicago. 100 lbs. 8.85 • —
bgs., smaller lots, same basis 100 lbs. 10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis 100 lbs. 11.45 • —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 • —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 • —
100-lb. cyls., works lb. 1.70 • —
Boron trifluoride, gas, cyls., t.l., works lb. .70 • —
cyls., l.t.l., works lb. .70 • —
Brimstone (see Sulfur).
Broenner's acid, bbls. lb. 1.53 • —
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .32 • —
cs., l.c.l., same basis lb. .34 • .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 • —
ret. dms., l.c.l., same basis lb. .31 • .34
tanks, same basis lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 • —
dms., l.c.l., same basis lb. .50 • —
tanks, same basis lb. .47 • —
Bromoform, pharmaceutical grade, 100-lb. cbys. lb. 1.80 • 1.90
Bromstyrol, bots. lb. 5.35 • 5.70
Brucine, cns oz. Nominal.
Brucine sulfate, NF, cns. 1.45 • 1.75
Buchu leaves, bbls. lb. .70 • .75

BROWN PIGMENTS

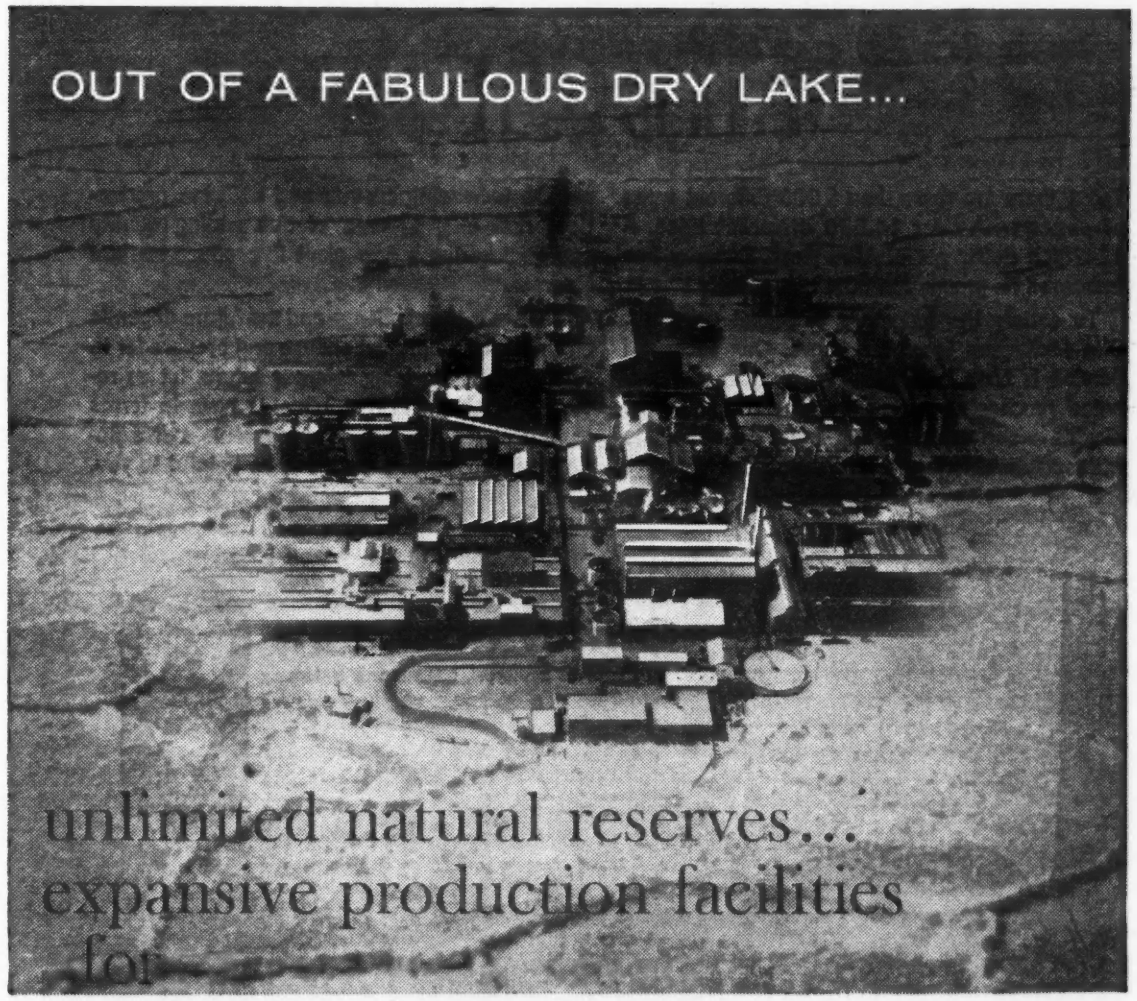
Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy. lb. .21 • —
cyls., l.c.l., refy. lb. .22 • —
tanks, dlvd. lb. .14½- —
Butene-1, tanks, works lb. .0625- —
Butene-2, tanks, works lb. .0570- —
n-Butyl acetate, ferment. dms., c.l., frt. alld. lb. .17 • —
dms., l.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Syn., dms., c.l., dlvd. E. lb. .17 • —
dms., l.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Sec-Butyl acetate, syn., dms., c.l., dlvd. E. lb. .14¾- —
dms., l.c.l., same basis lb. .16¼- —
tanks, same basis lb. .12¼- —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E. lb. .42½- —
dms., l.t.l., same basis lb. .43½- —
tanks, same basis lb. .40 • —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
n-Butyl alcohol, ferment. dms., c.l., frt. alld. lb. .18 • —
dms., l.c.l., frt. alld. lb. .19½- —
tanks, frt. alld. lb. .15½- —
n-Butyl alcohol, syn., dms., c.l., dlvd. lb. .18 • —
dms., l.c.l., frt. alld. lb. .19½- —
tanks, dlvd. lb. .15½- —
Sec-synthetic, dms., c.l., dlvd. lb. .15 • —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E. lb. .16 • —
dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½- —
dms., l.c.l., works lb. .38¼- —
n-Butyl ether, dms., c.l., works lb. .35¼- —
dms., l.c.l., works lb. .36 • —
tanks, works lb. .33¼- —
Butyl lactate, dms., c.l., frt. alld. E. Rockies lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 • —
Butyl laurate, dms., works lb. .37½- —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 • —
dms., l.c.l., works lb. .55½- —
Butyl oleate, refd., dms., l.c.l., works lb. .32 • —
Butyl phenylacetate, dms. lb. 4.50 • 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi lb. .27¼- —
dms., l.c.l., same basis lb. .28¼- —
Butylamine (see Mono-, Di- and Tri-butylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 • —
dms., l.c.l., same basis lb. .47½- —
tc., t.l., same basis lb. .45 • —

Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 • —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd. lb. .20½- —
dms., l.c.l., l.t.l., f.o.b. works lb. .22 • —
tanks, dlvd. lb. .18 • —
p-tert-Butylphenol, bgs., c.l., dlvd., lb. .27½- —
bgs., l.c.l., works lb. .28½- —
Butyraldehyde, dms., c.l., dlvd. lb. .22 • —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Butyric acid, 99%, dms., c.l., frt. equald. lb. .34 • —
dms., l.c.l., same basis lb. .34½- —
tanks, same basis lb. .32½- —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 • —
dms., l.c.l., same basis lb. .43 • —

C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies lb. 5.55 • —
Light shade, bbls., same basis lb. 4.65 • —
medium shade, bbls., same basis. lb. 5.30 • —
Medium light shade, bbls., same basis lb. 4.90 • —
Orange-red shade, bbls., same basis lb. 4.30 • —
Yellow, all shades, bbls., frt. alld. E. of Rockies lb. 2.85 • —
Cadmium iodide, 25-lb. fib. dms. lb. 6.75 • 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd. lb. 1.30 • —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies lb. 1.65 • —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.95 • —
Red, light shade, bbls., same basis. lb. 1.72 • —
Red, medium shade, bbls., same basis lb. 1.87 • —
Red, medium light shade, bbls., same basis lb. 1.80 • —
Red, maroon shade, bbls., same basis lb. 2.03 • —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies lb. 2.76 • —
Orange, bbls., same basis lb. 1.58 • —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis lb. 1.72 • —
Red, dark shade, bbls., same basis. lb. 2.56 • —
Red, light shade, bbls., same basis. lb. 1.88 • —
Red, medium shade, bbls., same basis lb. 2.00 • —
Red, medium-light shade, bbls., same basis lb. 2.23 • —
Calmium-selenide lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.19 • —
Caffeine, NF, citrated, dms., 100-lb. lots or more lb. 2.70 • —
USP, nat., cryst., anhyd., dms., 100-lb lots or more lb. 2.10 • —
Caffeine, USP, nat., cryst., hydrous, dms., 100-lb. lots or more. lb. 1.96 • —
USP, syn., anhyd., dms., 100-lb. lots or more lb. 2.10 • —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 • —
Cajuput oil, native, cns. lb. 1.75 2.00
Redist., USP, cns. lb. 1.90 2.10
Calamine, USP, dms. lb. .34 —
Calamus oil, bots. lb. 12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram. .54 • —
1-10 kilo lots gram. .55 • —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb. 3.10 • —
Calcium arsenate, dealers, bgs., c.l., frt. alld lb. .09 • .09¼
bgs., l.c.l., same basis lb. .10 • .10½
Calcium bromide, NF, jars, 100 lbs. or more lb. .97 • —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton. 149.00 • —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton. 10.50 • —



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Calcium Carbonate—Cassia Oil

Calcium carbonate, chalk, whiting, 325 mesh, bgs., c.l., works, ton 32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton 30.00 - —
10 to 20 microns, bgs., c.l., works ton 17.00 -18.00
precip., dense, bgs., c.l., works, ton 30.00 -38.50
bgs., l.c.l., works ton 45.00 -53.50
medium, bgs., c.l., works ton 38.00 - —
bgs., l.c.l., works ton 48.00 -53.00
Calcium Carbonate, surface treated, bgs., c.l., works ton 42.00 -44.00
bgs., l.c.l., works ton 57.00 -59.00
ultrafine, bgs., c.l., works ton 117.50 -167.50
bgs., l.c.l., works ton 137.50 -187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l. works, frt. equald. ton 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton 32.00 - —
Liquor, 40%, tanks, frt. equald. ton 12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt equald ton 37.00 - —
Purif., gran., dms. lb. .27 —
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald ton 29.50 - —
dms., l.c.l., works, frt. equald. ton 36.00 -73.00
USP, gran., dms. lb. .32 - —
Calcium chromate, bgs., dlvd lb. .37 - —
Calcium cyanide dms., c.l., dlvd. E. of Rockies lb. .20 - —
dms., l.c.l., same basis lb. .24 - .55
Calcium cyclamate, 100-lb. dms lb. 1.95 - —

Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb. .73½- —
USP, powd., 100-lb. dm., ton lb. .66½- —
Calcium hydride, lump, dms., works, lb. 2.20 - 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs. 23.85 -25.60
100-lb. dms., same basis dm. 33.30 -36.55
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, jars lb. 4.52 - —
Calcium lactate, NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt equald lb. .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo. 35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms. lb. 1.24 - 1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald 100 lbs. 16.00 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton 86.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton 80.50 - —
bgs., l.c.l., frt. equald ton 96.00 - —
Dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs., l.c.l., frt. equald ton 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.

Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis, 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald. 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald. 100 lbs. 10.00 - —
Calcium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N. Y. lb. .39 - —
Calcium resinate, precip., dms., ton lots, frt. alld., works lb. .40¼- —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½- —
Calcium silicate, paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calcium sulfate (see Gypsum).
Calomel, NF, mild, powd., dms., 100-lbs., f.o.b. works lb. 4.32 - —
NF, mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 - —
Camphene, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l., same basis lb. .16½- —
tanks, same basis lb. .12½- —
Camphene, chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs. lb. 3.63 - 3.70
Nat., USP, powd., cs., 100-lb. lots. lb. .60 - .65
tablets, 1-oz. cs. lb. .85 - .90
Nat., USP, gran., bbls., 2,000-lb. lots lb. .59 - —

Camphor, syn., tech., 1 bbl. or more. lb. .48 - —
USP, gran., powd., bbls., 1,000-lb. lots lb. .60 - —
bbls., smaller lots lb. .61 - —
tablets, ctns., 1,000-lb. lots. lb. .85 - —
ctns., 500-lb. lots lb. .86 - —
ctns., smaller lots lb. .87 - —
Camphor oil, sassafrassy, dms. lb. .35 - .55
White, dms. lb. .26 - .50
Cananga oil, native, cns. lb. 5.00 - 6.50
Rectified, cns. lb. 7.25 -10.00
Candelilla wax, crude, bgs. lb. .55 - .56
Refd., pure, bgs. lb. .60 - .62
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. lb. 1.00 - —
powd., bgs. lb. 1.15 - —
Russian, bgs. lb. 2.00 - 2.15
powd., bgs. lb. 2.15 - 2.30
Capric acid, dms. lb. .30¾- .33¼
tanks lb. .28¼- —
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works lb. .52 - —
bgs., l.c.l., t.t.l., same basis lb. .57 - —
tanks, same basis lb. .49 - —
Capryl alcohol, 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis lb. .19½- —
tanks, frt. equald. lb. .16½- —
Sec., 92-99%, dms., c.l., f.o.b. works lb. .22 - —
dms., l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½- —
Caprylic acid, dms lb. .30¾- .33¼
tanks lb. .28¼- —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
Caraway oil, NF, dms lb. 3.15 - 3.75
Caraway seed, Danish, bgs. lb. .16 - —
Dutch, bgs. lb. .21 - —
Polish, bgs. lb. .17¼- —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works lb. .08½- —
bgs., l.c.l., works lb. .16¼- —
Furnace, fast extruding, bgs., c.l., works lb. .06¾- —
ctns., l.c.l., whse. lb. .13½- —
Carbon black, high abrasion, bulk, c.l., works lb. .07¼- —
bgs., c.l., works lb. .07¾- —
bgs., l.c.l., dlvd. or whse lb. .14¼- —
high modulus, bgs., c.l., works, lb. .06¼- —
ctns., l.c.l., whse. lb. .13 - —
semi-reinforcing, bgs., c.l., works lb. .05¾- —
bgs., ctns., l.c.l., whse. lb. .12½- —
pigment, high color beads, ctns., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½- —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton 60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E. ton 55.00 - —
Solid, bulk, wholesale, works ton 85.00 - —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 - —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, dlvd. lb. .0520- —
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb. .12¾- —
dms., l.c.l., frt. alld. lb. .15¼- —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾- —
dms., l.c.l., l.t.l., frt. alld lb. .14¼- —
tanks, frt. alld lb. .10¾- .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works lb. 4.10 - 4.75
Cardamom oil, NF, bots. lb. 39.00 -42.00
Cardamom seed, bleached "A" lb. 3.50 - —
Bleached "B" lb. 3.25 - —
Decorticated Alleppey, cs. lb. 2.30 - —
Guatemala, cs. lb. 3.05 - —
Green, Alleppey, bgs. lb. 2.15 - —
Ceylon, bgs. lb. 2.25 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb. 16.80 - —
bulk, smaller lots, dlvd. lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots lb. .73 - .75
North Country, No. 2, crude, bgs., ton lots lb. .82 - .84
refd., pure, ton lots lb. .87 - .88
North Country, No. 3, Ceara, ton lots lb. .72 - .73
North Country, No. 3, Parnahyba, ton lots lb. .73 - .74
No. 3, refd., pure, bgs., ton lots, lb. .80 - .81
No. 1, Ceara, yellow, bgs., ton lots, lb. 1.00 - 1.02
Parnahyba, yellow, bgs., ton lots lb. 1.01 - 1.03
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd. gram. .20½- —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —
b-Carotene, in vegetable oil, sol. kilo. 240.00 - —
solid suspension, 400,000 A units per gram, cns. kilo. 57.60 - —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns. kilo. 72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns.
Carvol, bots. lb. 5.00 - 5.40
Cascara sagrada bark, bulk lb. .32 - —
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible, acid-precip., grd., Argentine, bgs., c.l., ex-dock Eastern seaports lb. .20 - .20¼
Australian, bgs., c.l., same basis lb. .22¼- .22½
Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J. lb. .24 - —
dms., ton lots, same basis lb. .25 - —
t.w., same basis lb. .22½- —
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia oil, redist., USP, cns. lb. 7.50 - 9.00

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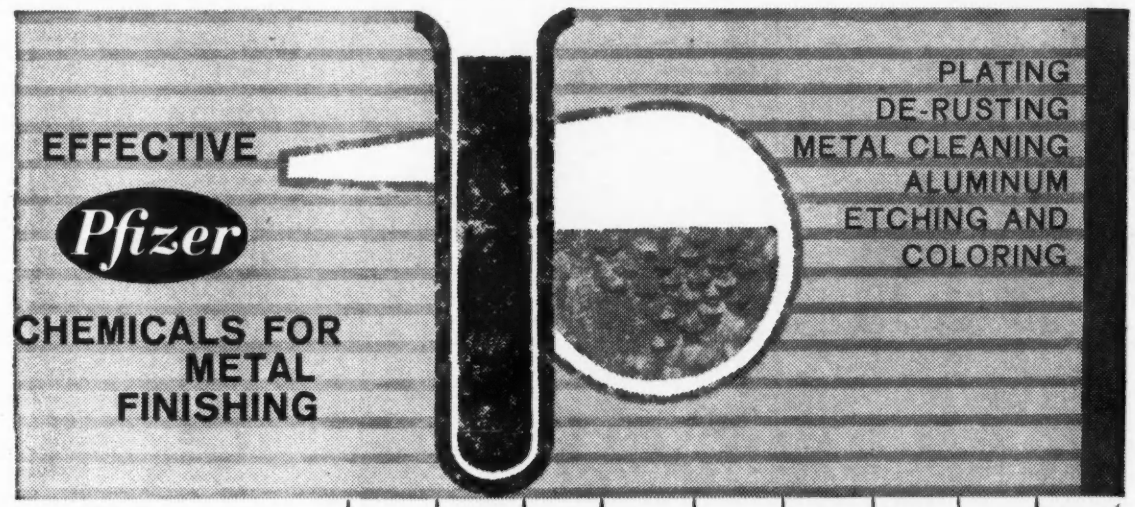
Cassia, Padang, "A," bls.	lb.	.30	—
"B," bls.	lb.	.29	—
"C," bls.	lb.	.28	—
Korintje "A," bls.	lb.	.34	—
"B," bls.	lb.	.30	—
"C," bls.	lb.	.30	—
Castor oil, dom., blown, dms., c.l.	lb.	.2550-	—
dms., l.c.l.	lb.	.2650-	—
Castor oil, dom., dehydrated, bodied, dms., c.l.	lb.	.2700-	—
dms., l.c.l.	lb.	.2850-	—
tanks	lb.	.2500-	—
dehydrated, unbodied, dms., c.l.	lb.	.2500-	—
dms., l.c.l.	lb.	.2660-	—
tanks	lb.	.2360-	—
hydrogenated, bgs., c.l.	lb.	.2450-	—
bgs., ton lots	lb.	.2850-	—
bgs., l.c.l., dlvd.	lb.	.3050-	—
Castor oil, No. 1, dms., c.l.	lb.	.2150-	—
dms., l.c.l.	lb.	.2300-	—
tanks	lb.	.2000-	—
No. 3, tech., dms., c.l.	lb.	.2125-	—
dms., c.l.	lb.	.2225-	—
tanks	lb.	.1925-	—
Refd. deod., dms., c.l.	lb.	.2650-	—
dms., l.c.l.	lb.	.2750-	—
tanks	lb.	.2450-	—
USP, dms., c.l.	lb.	.2350-	—
dms., l.c.l.	lb.	.2450-	—
tanks	lb.	.2150-	—
Imported, No. 1, Braz., taks.	lb.	.18¾-	—
Sulfonated, 50%, dms., works	lb.	.15	.15½
75%, dms., works	lb.	.19	.19½
Castor oil acids, dehydrated, dms.	lb.	.44¼-	.46¼
Split, dms.	lb.	.37¼-	.38¼
Castor pomace, bgs., c.l., works	ton.	35.00	—
Castoreum nat., cns.	lb.	5.25	—
Syn., cns.	lb.	9.00	—
Catechol, CP, cryst., fib., dms., works	lb.	2.17½-	—
Resub., dms., works	lb.	4.29½-	—
Catnip leaves, Southern, bls.	lb.	Nominal.	
Caustic potash (see Potash caustic).			
Caustic soda (see Soda, caustic).			
Cedarleaf oil, USP XIII cns., dms.	lb.	3.25	3.50
Cedarwood oil, cns., dms.	lb.	.70	—
Celery seed, French, bgs.	lb.	.37	—
Indian, bgs.	lb.	.19	—
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E	lb.	.36	.51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E	lb.	.543	.553
27% butyryl content, bgs., dlvd. E	lb.	.593	.603
38% butyryl content, bgs., dlvd. E	lb.	.543	.553
38% butyryl content, half-second, bgs., dlvd. E	lb.	.545	.555
50% butyryl content, bgs., dlvd. E	lb.	.585	.595
Cellulose gum, methyl (see Methyl Cellulose).			
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt. alld.	lb.	.57	—
bgs., smaller lots, same basis	lb.	.59	—
Cerium hydrate 74% CeO, fib. dms., 100-lb. lots or more	lb.	1.40	—
77% CeO, fib. dms., 100-lb. lots or more	lb.	1.74	—
Cerium oxalate (see Rare earth oxalate)			
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd.	lb.	1.85	1.90
bgs., smaller lots, dlvd.	lb.	2.15	—
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E	lb.	.41½-	—
fib. cns., l.c.l., same basis	lb.	.43½-	—
tanks, same basis	lb.	.39	—
Extra, cns., c.l., t.l., dlvd. E	lb.	.48½-	—
fib. cns., l.c.l., same basis	lb.	.50½-	—
tanks, same basis	lb.	.46	—
Chalk (see Calcium carbonate).			
Chamomile flowers, Hungarian, bls.	lb.	.90	1.00
Roman, cs.	lb.	1.50	1.75
Chamomile oil, blue Hungarian, bots.	lb.	350.00	—
Charcoal, activated, NF, fib. dms., c.l., works	lb.	.25	.32
fib. dms., 5-ton lots, works	lb.	.26½-	.32½
fib. dms., smaller lots, works	lb.	.27	.50
Charcoal, black (see Charcoal, activated).			
Charcoal, bone (see Bone black).			
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant	ton.	55.00	—
briquets, bulk, c.l., f.o.b. plant	ton.	80.00	—
5-lb. paper bgs., c.l., same basis	ton.	106.00	—
20-lb. paper bgs., c.l., f.o.b. plant,	ton.	90.00	—
40-lb. paper bgs. c.l., same basis	ton.	86.00	—
Chenopodium oil, NF, cns	lb.	4.25	5.00
Chicago acid, paste, bbls., frt. alld.	lb.	3.21	—
Chinawood oil (see Tung oil).			
Chloral, tech., 94% min., dms., c.l., works	lb.	.23	—
dms., l.c.l., works	lb.	.24	—
tanks, multiple units, 5 cars, dms., l.c.l., works	lb.	.21	—
Chloral hydrate, USP, jars, 1,000-lb. lots	lb.	1.00	—
jars, 500-lb. lots	lb.	1.03	—
jars, 100-lb. lots or less	lb.	1.05	—
Chlordan, agricultural, dms., c.l., frt. alld.	lb.	.63	—
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld.	lb.	.66	—
Chlordan, clarified, dms., c.l., frt. alld.	lb.	.69	—
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld.	lb.	.70	—
Chlorinated paraffin, 40%., dms., c.l., frt. alld.	lb.	.13	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.16	—
70%, dms., c.l., same basis	lb.	.18½-	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.19½-	—
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works	lb.	.60	—
ctns., l.c.l., works	lb.	.61	—
125 cps., ctns., c.l., works	lb.	.70	—
300 cps., ctns., c.l., works	lb.	.80	—
Chlorine, liq., cyls., c.l., works, frt. equald.	lb.	.11	—
cyls., l.c.l., Metropolitan area	lb.	.12½-	.13¾
tanks, single units, works, frt. equald.	100 lbs.	3.25	—
tanks, multiple units, 5 cars, works, frt. equald	100 lbs.	4.15	—
tanks, multiple units, 4 cars, same basis	100 lbs.	4.35	—
tanks, multiple units, 2 cars, same basis	100 lbs.	5.35	5.85
tanks, multiple units, 1 car, same basis	100 lbs.	6.25	7.25
Chloroacetic acid, mono, flake, 99% purif., dms., c.l.	lb.	.23½-	.25½
dms., l.c.l.	lb.	.24½-	—
tech., flake, 96-97%, dms., c.l., dms., l.c.l., frt. equald	lb.	.20	—
frt. equald.	lb.	.19	—
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld.	lb.	1.03	—
4-Chloro-2-aminotoluene, fused, bbls.	lb.	1.38	—
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld.	lb.	.66	—
m-Chloroaniline, dms., c.l., frt. alld.	lb.	.75	—
dms., l.c.l., same basis	lb.	.77	—
tanks, same basis	lb.	.73	—
o-Chloroaniline, dms., c.l., frt. alld.	lb.	.52	—
dms., l.c.l., same basis	lb.	.54	—
tanks, same basis	lb.	.50	—
p-Chloroaniline, dms., c.l., frt. alld.	lb.	.77	—
dms., l.c.l., same basis	lb.	.79	—
o-Chlorobenzaldehyde, dms., t.l., works	lb.	1.05	—
dms., l.t.l., same basis	lb.	1.20	—
p-Chlorobenzaldehyde, dms., l.c.l., works	lb.	1.93	—
o-Chlorobenzoic acid, fib. dms., t.l., works	lb.	1.10	—
fib. dms., smaller lots, works	lb.	1.25	—
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works.	lb.	2.23	—
fib. dms., less than 2,000-lbs., same basis	lb.	2.30	—
Chloroform, tech., dms., c.l., dlvd. E	lb.	.18	—
dms., l.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.17	—
USP, dms., c.l., dlvd.	lb.	.27	—
dms., l.c.l., dlvd.	lb.	.30	—
tanks, minimum 4,000 gals. dlvd.	lb.	.25	—
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis	lb.	.81	—
Powd., dlvd. E., 100% basis	lb.	.86½-	—
4-Chloro-2-nitroaniline, powd., dlvd. E	lb.	.86	—
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld.	lb.	.73	—
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld.	lb.	.99	—
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld.	lb.	.17	—
o-Chlorophenol, dms., c.l., frt. equald.	lb.	.37	—
dms., l.c.l., same basis	lb.	.38	—
p-Chlorophenol, dms., c.l., frt. equald.	lb.	.37	—
dms., l.c.l., same basis	lb.	.38	—
Chloropicrin, coml., cyls., 180 lbs., frt. alld.	lb.	1.07	—
cyls., 100 lbs., same basis	lb.	1.08	—
cyls., 50 lbs., same basis	lb.	1.14	—
Chlorosulfonic acid, dms., c.l., frt. equald.	lb.	.0465-	—
dms., l.c.l., frt. equald.	lb.	.0515-	—
tanks, frt. equald	lb.	.0415-	—
Chlorosulfonic acid, in stainless steel dms. ½c. per lb. higher			
o-Chlorotoluene, tech., dms., t.l., works	lb.	.37	—
dms., l.c.l., t.t.l., same basis	lb.	.38	—
Choline bitartrate, fib. dms., frt. adjusted.	kilo	2.75	3.00
Choline chloride, fib. dms., frt. adjusted.	kilo	2.75	3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted.	kilo	2.75	3.00
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls., dlvd. E. of Rockies,	lb.	.43	—
blue content, 16-30%, bbls., same basis	lb.	.44	—
medium blue content, 41-45%, bbls., same basis	lb.	.44	—
blue content, 45-49%, bbls., same basis	lb.	.45	—
Chrome green, reduced color 25%, bbls., same basis	lb.	.20	—
Chrome green prices 1c. higher W. of Rockies.			
Chrome orange, CP, bbls., dlvd. E of Rockies	lb.	.35	—
Chrome orange prices 1c. higher W. of Rockies.			
Chrome yellow, CP, bbls., dlvd. E. of Rockies	lb.	.35	—
Chrome yellow price 1c. higher W. of Rockies.			
Chromic acid, 99¾%, dms., c.l., works, frt. equald.	lb.	.29½-	—
dms., l.c.l., dlvd. N. Y. Metropolitan area	lb.	.30	.31
Chromic acid, NF (see Chromium trioxide).			
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works.	lb.	.10	—
Chromium fluoride, bbls., works	lb.	.51	.53
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld.	lb.	1.20	—
Pure, bgs., c.l., frt. alld.	lb.	.44½-	—
bgs., l.c.l., same basis	lb.	.45¼-	—
Chromium trioxide, NF, bots.	lb.	1.15	—
Cinchona bark, NF, red, broken, bgs.	lb.	.25	—
NF, yellow, broken, bgs.	lb.	.35	.40
Cinnamic acid, refd., bots.	lb.	2.50	3.50
Cinnamic alcohol, bots.	lb.	1.60	1.75
Cinnamic aldehyde, dms.	lb.	.80	1.00



	Cleaning	Polishing	Pickling	Electroplating	Electropolishing	Non-Electrolytic Depositions	Electrolytic Oxidation	Etching	Cold Coloring of Aluminum
Citric Acid	✓	✓	✓	✓	✓	✓	✓	✓	
Sodium Citrate	✓	✓		✓		✓			
Ammonium Citrate	✓	✓	✓	✓					
Gluconic Acid	✓	✓	✓	✓				✓	
Glucono Delta Lactone	✓	✓	✓	✓				✓	
Sodium Gluconate	✓	✓		✓				✓	
Oxalic Acid	✓	✓	✓	✓	✓		✓	✓	
Ammonium Oxalate	✓	✓		✓					
Ferric Ammonium Oxalate									✓
Tartaric Acid	✓		✓	✓				✓	
Tartar Emetic				✓					
Rochelle Salt			✓	✓					
Cream of Tartar	✓			✓					

Citric Acid...
Nontoxic, mild, yet chemically active against scale and tarnish. Used extensively in the formulation of general metal cleaners and polishes, particularly household products.

Sodium Citrate...
A preferred ingredient in electroless nickel baths, resulting in a brighter plate. Also finds wide use in electroplating processes.

Ammonium Citrate...
Especially useful for the removal of rust in near neutral solutions. Extremely mild and safe to handle.

Gluconic Acid...
An excellent sequesterant in alkaline derusting solutions; provides rust-free, clean surface ready for further treatment. Also highly effective in aluminum etching and paint stripping compounds.

Oxalic Acid...
The most effective chemical for use in automobile radiator cleaners. Also finds wide use in electropolishing and as an ingredient in general metal cleaners.

Ferric Ammonium Oxalate...
Used extensively in the production of light-fast gold colored aluminum.

Tartaric Acid...
Excellent complexing agent for copper in electroplating.

Tartar Emetic...
Used in electrolytic baths for deposition of silver and antimony alloys on brass, copper and steel surfaces.

Rochelle Salt...
Increases efficiency and yields finer-grain deposit in alkaline copper plating.

Cream of Tartar...
An excellent additive for brass cleaning compounds. Its crystalline structure acts as an effective abrasive in paste polishes. Chemically active against tarnish.

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Cinnamon, Ceylon, No. 2, bgs...lb. .53 - —
Ceylon, No. "0000," bgs. .....lb. .73 - —
Cinnamon bark oil, bots .....lb.36.00 -70.00
Cinnamon leaf oil, crude, dms lb. 1.60 - 2.00
USP. (Cassia), cns., dms .....lb. 8.50 -13.50
Citral, CP, bots. .....lb. 3.60 - 4.00
Extra, bots. .....lb. 3.60 - 5.00
Syn., dms. .....lb. 7.25 - 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l lb. .29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt lb. .30 - .30½
bgs., dms., smaller lots lb. .30½- .31
Citric acid, USP, hydrous, fine gran., bgs., dms., c.l lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt lb. .28 - .28½
bgs., dms., smaller lots lb. .29 - .29½
Powdered citric acid ½c. per lb. higher.
Citronella oil, Ceylon, dms.... lb. 1.00 - —
Java-type, dms. .....lb. 1.05 - —
Citronellal, bots., dms .....lb. 1.60 2.10
Citronellol, bots., dms. .....lb. 1.90 2.50
Citronellol, synthetic, dms.....lb. 1.70 - —
Civet, artif., bots .....lb.13.75 -15.00
Nat., bots. .....oz. 8.50 -15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn ton.17.50 -21.50
crushed shed moisture, bulk, c.l., Tenn ton. 8.00 -11.25
imp., airfloated, bgs., c.l., Atl. port net-ton.43.00 -47.00
lump, bulk, Atl. port net-ton.31.50 -37.50
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton.11.00 -17.00
Georgia, bgs., l.c.l., works ton.13.50 -22.50
imp., white, lump, bulk, c.l. ex-dock, Philadelphia, Portland, Me. long-ton.23.00 -35.00
white, powd., bgs., c.l., ex dock. net-ton.50.00 - —
bgs., l.c.l., ex whse net-ton.60.00 -70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York gal. 18 - —
Group 3 .....gal. .12875- —
Houston, Texas .....gal. .145 - —
140-F Flash, tankcars, New Jersey or New York gal. .205 - —
Group 3 .....gal. .154 - —
Houston, Texas .....gal. .17 - —
Cleve's acid, tech., mixed, solid, dms., frt. alld lb. 1.05 - —
1.6, tech., solid, dms., frt. alld lb. .77 - —
1.7, tech., dms., frt alld..... lb 2.20 - —
Cloves, Madagascar, bgs. .....lb. .38½- —
Zanzibar, bgs. .....lb. .38½- —
Clove bud oil, USP, dms..... lb 2.70 3.60
Clove leaf oil, crude, dms. .....lb. 1.25 - —
CMC, crude, 96.4% low or medium vis., bgs. or fib dms., 23,000 lbs., dlvd. E., 100% basis lb. .41½- —
96.4% low, or medium vis., bgs. or fib. dms., less than 23,000 lbs., dlvd. E., 100% basis lb. .43½- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis lb. .43½- —
purif., high vis. (see Cellulose gum).
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld lb. .57 - —
bgs., smaller lots, same basis, lb. .59 - —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.
Coaltar, crude, resale for soln., tanks, works gal. .17 - —
Refd., resale, indust., dms., c.l., ex whse gal. .35 - —
dms., l.c.l., ex whse..gal. .39 - —
tanks, works .....gal. .20½- —
Coaltar pitch, aluminum, bulk, works. ton.44.00 - —
Carbon and indust., bulk, works. ton.44.00 - —
Core, bulk works..... ton.40.50 - —
Fiber, bulk works..... ton.48.00 - —
Roofing, 140-155°F., Federal Specification RP-381 Type I, Cobalt acetate, 23.7% Co., dms., dlvd lb. 1.04 - —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E of Rockies lb. 4.90 - —
Cobalt blue prices 1c. higher W. of Rockies.
Cobalt blue, imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 2.05 - —
Cobalt linoleate, fused 8½% Co., dms lb. .71½- —
Liq., 6% Co., dms .....lb. .57½- —
Cobalt metal, 99% dms., f.o.b. carrier lb. 1.50 - —
Cobalt naphthenate, liq., 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate, 20.1% Co., bbls., dlvd, lb. .75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd. E. of Mississippi R. lb. 1.15 - —
70-71% Co., kgs., same basis lb. 1.12 - —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher.
Cobalt phosphate, powd., 32.1% Co., dms., dlvd lb. 1.35 - —
Cobalt resinate, fused, 3% Co., dms. lb. .33½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 - —
Monohydrated, 33% Co., dms., dlvd lb. 1.09 - —
Cobalt tallate, 6% Co., dms., dlvd. lb. .44 - —
Cocaine, USP, cns., 100-oz. lots, f.o.b. works oz.17.50 - —
Cocaine hydrochloride, cns., 100-oz. lots, f.o.b. works oz.13.75 - —
Cocillana bark, bls. .....lb. .18 - .20
Cocoa butter, bgs. .....lb. .58 - .63
Coconut oil, crude, tanks, New York..lb. .14¼- —
tanks, Pac. coast .....lb. .12 - —
Refd., deodorized, dms .....lb. .19½- .20½
Coconut oil acids, dist., dms .....lb. .25 - .27½
tanks .....lb. .22½- —
double dist. (stripped), dms....lb. .26 - .28½
tanks .....lb. .23½- —
Cod oil, dms., spot .....lb. .06¾- .06½
Codeine, NF, cns., 100-oz. lots..oz.13.25 - —
Codeine hydrochloride, cns., 100-oz. lots..oz.11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots..oz.10.25 - —
Codeine sulfate, USP, cns., 100-oz. lots oz.10.75 - —
Codliver oil, USP, dms.....gal. 1.40 - 1.70
Cohosh root, black, bls. .....lb. .20 - .25
Blue, bls. .....lb. .20 - .25
Colchicine, USP, bots. .....oz.29.00 - —
Colchicum root, bls. .....lb. .35 - .45
Colchicum seed, bgs. .....lb. .75 - .80
Collodion, USP, dms. .....lb. .32½- —
USP flexible, dms. .....lb. .34 - —
Colocynth pulp, bls. .....lb. .75 - —
Colombo root, bls .....lb. .16 - .18
Condurango bark, bls .....lb. .18 - .20
Congo copal gum, No. 1, bgs....lb. .26 - .27
No. 2, bgs. .....lb. .23 - .25
No. 3, bgs. .....lb. .18 - .20
Copaiba balsam, cns., dms.....lb. .65 - 1.10
Copaiba oil, cns .....lb. 1.35 - 2.00
Copper acetate, bbls., c.l., works. lb. .53 - —
bbls., l.c.l., works .....lb. .54 - —
Copper carbonate, 55%, bgs., c.l., works lb. .3635- —
bgs., l.c.l., works .....lb. .3785- —
Copper chloride cupric, anhyd., dms., works lb. .45½- .46
cryst., dihydrate, dms., works. lb. .31 - .31½
cryst., dried, dms., works lb. .39¼- .39¾
Copper chloride, cuprous, dms., works lb. .4135- .4435
Copper cyanide, tech., dms., 20,000-lb. lots or more lb. .609 - —
dms., 1,000-lb. lots or more lb. .619 - —
dms., smaller lots .....lb. .639 - .65
Copper gluconate, dms .....lb. 3.20 - —
Copper hydrate, dry, dms., c.l., frt. E. of Miss lb. .53½- —
dms., l.c.l., same basis lb. .54 - —
Copper metal, electrolytic, dlvd. Valley basis lb. .33 - .36
Copper naphthenate, liq., 8% Cu, dms, frt. alld lb. .26½- —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 - —
Copper oxide, black, bbls., 100-5,000-lb lots, works lb. .49¼- —
Copper oxide, red, 97%, USN Type I, bbls., 100-5,000-lb. lots, lb. .50½- —
90%, USN Type II, bbls., 100-5,000-lb. lots or more, works. lb. .48½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate, dms lb. 1.14 - 1.15
Copper resinate, precip., dms., frt. alld lb. .41½- —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works. 100 lbs.13.00 - —
bgs., l.c.l., works 100 lbs.13.25 -15.75
Monohydrated, 35%, dms., c.l., works 100 lbs.24.00 - —
dms., l.c.l., works 100 lbs.24.75 - —
Tribasic, distributors, bgs., c.l., works 100 lbs.29.60 - —
bgs., l.c.l., works 100 lbs.31.10 - —
Copper undecylenate, dms lb 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ....ton.170.00 - —
Pac. ports, c.i.f .....ton.165.00 - —
Coriander oil, USP, bots .....lb. 9.55 -10.00
Coriander seed, Moroccan, bgs. lb. .12 - —
Rumanian, bgs. .....lb. .10½- —
Yugoslavian, bgs .....lb. .08½- —
Corn oil, crude, tanks, works....lb. .12⅜- —
Foots (soapstock) acid 95°c, tanks, New York lb. .05 - —
Refd., salad, dms. .....lb. .1810- .1835
tanks .....lb. .1610- —
Corn oil acids, dist., dms. .....lb. .15¾- .18¼
tanks .....lb. .1648- —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 - —
paper bgs., l.c.l .... 100 lbs. 7.45 - —
Corn syrup, 42° Be., tanks, f.o.b. plant...100 lbs. 5.41 - —
non-ret. dms., c.l., same basis. 100 lbs. 7.52 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram. 1.05 - 1.75
Costus oil, bots. .....oz. 6.00 - —
Cottonseed meal, 41%, bgs. Memphis ton.57.00 - —
Cottonseed oil, crude, tanks, South, East lb. .09½- .09⅝
tanks, Valley .....lb. .09½- .09⅝
tanks, Texas, Lubbock .....lb. .09½- .09⅝
Foots (soapstock), acid, 95%, tanks, Texas, Waco lb. .03¼- —
Refd., salad, dms. .....lb. .14¾- .15
tanks .....lb. .12¾- —
Cottonseed oil acids, dist., dms lb. .15⅜- .18¼
tanks .....lb. .13⅛- —
Coumarin, NF, cryst., dms....lb. 3.30 - 3.40
Cramp bark, NF, bls. .....lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots., cbys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
Crude, soln. 80%, tanks, works. gal. .226 - —
Refd., dms., c.l., works .....gal. .50 - —
dms., l.c.l., same basis...gal. .62 - —
tanks, same basis .....gal. .38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 - 1.47
Pinewood, dms., incl., c.l., works. lb. .0561- —
dms., incl., l.c.l., works .....lb. .0634- —
dms., incl., l.c.l., ex whse, New York lb. .0745- —
tanks, works .....lb. .0460- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis .....lb. .145 - —
Cresol, USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis. lb. .19 - —
tanks, same basis .....lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
dms., l.c.l., works .....lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald. lb. .18 - —
dms., l.c.l., same basis.....lb. .19 - —
tanks, same basis .....lb. .16 - —
2.97% 2°C., dms., c.l., frt. equald. lb. .22 - —
dms., l.c.l., same basis.....lb. .23 - —
tanks, same basis .....lb. .20 - —
o-Cresol, 30.5°C. m.p. and over, ret., dms., c.l., frt. equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis .....lb. .15 - —
30°-30.49°C. m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis .....lb. .14½- —
o-Cresol, 30.5°C. m.p. and over, ret.
Cresol, 29°-29.9°C. m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis .....lb. .14 - —
25°-28°C. m.p., dms., c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis .....lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd .....lb. .53 - —
tanks, dlvd. .....lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works lb. .70 - —
dms., smaller lots, works .....lb. .72 - —
p-Cresyl methyl ether, cns .....lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis gal. 1.25 - —
tanks, frt. equald .....gal. 1.00 - —
Cresylic acid, coaltar, imp., metapara content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more. gal. 1.03½- —
less than 50 dms., same basis gal. 1.05 - 1.15
tanks, same basis .....gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., l.c.l, works lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs.13.00 - —
bgs., l.c.l., works .... 100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs., l.t.l., works .....lb. .22 - —
Cubeb berries, NF, bgs .....lb. 1.00 - —
Powd., cs. .....lb. 1.15 - —
Cubeb oil, cns .....lb.12.00 -16.00
Cumene, dms., c.l., works .....lb. .12 - —
dms., l.c.l., works .....lb. .14 - —
tanks, works .....lb. .11 - —
Cumin seed, Iranian, bgs. .....lb. .22 - —
Moroccan, bgs. .....lb. .36 - —
Turkish, bgs. .....lb. .27 - —
Cumin seed oil, bots., cns .....lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract. ton.57.00 - —
Fertilizer, pulv., 21% N, bgs., works unit-ton. 2.85 - —
Cyanamide, fertilizer, indust. grade, bgs, c.l., works...ton.75.00 - —
bgs., l.c.l., works .....ton.96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works...ton.120.00 - —
dms., l.c.l., works .....ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E of Rockies gal. 1.02 - —
dms., l.c.l., same basis gal. 1.10 - —
dms., c.l., dlvd. W. of Rockies gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works .....gal. .55 - —
98%, tech., 40-dm. lots or more, f.o.b. works..gal. .56 - —
5-39 dms., same basis.....gal. .60 - —
tanks, same basis .....gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .28½- —
dms., l.c.l., works, same basis. lb. .29½- —
tanks, works, same basis....lb. .26 - —
Cyclohexanone, tech., dms., c.l., works. lb. .33½- —
dms., l.c.l., works.....lb. .34½- —
tanks, works .....lb. .31 - —
lb. .49 - —
dms., l.c.l., works.....lb. .50 - —
tanks, works .....lb. .47 - —
Cypress oil, bots.....lb. 5.30 - —

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2,4-D, tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
tanks, dlvd. E. .....lb. .41 - —
bgs., dms., l.c.l., same basis..lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis.....lb. .48 - .52
tanks, same basis.....lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., works.....lb. .48 - .52
tanks, works .....lb. .42 - —
Dammar gum, Batavia, A/E. cs. lb. No stocks.
East India, Batu, bold, bgs. lb. .15½- .18
nubs and chips, bgs. .....lb. .09 - .10
black, bold, bgs.....lb. .15½- .16
nubs and chips, bgs. .....lb. .12¼- .13½
unscraped, bgs. .....lb. .13 - .14½
pale, chips, bgs. .....lb. .15 - .17
pale, nubs, bgs. .....lb. .20¾- .24
Siam, cs. .....lb. .31½- .34
Singapore, No. 1, bgs. .....lb. .34 - .40
No. 2, bgs. .....lb. .29 - .32
No. 3, bgs. .....lb. No stocks.
dust, bgs. .....lb. .18 - .20
Dandelion root, bls.....lb. .35 - .40
DDD, tech., flake, grd., fib. dms., c.l., works. lb. .45 - .47
fib. dms., l.c.l., works. lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd. lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib. dms., c.l., same basis....lb. .24 - —
fib. dms., smaller lots, same basis. lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
i-Decanol, tech., dms., c.l., dlvd. E. lb. .43¼- —
dms., l.c.l., dlvd. E. .....lb. .45½- —
Cyclohexylamine, dms., c.l., works.
Decyl alcohol, mixed isomers, dms., c.l., dlvd..lb. .23½- —
dms., l.c.l., dlvd. .....lb. .25 - —
tanks, dlvd. .....lb. .21 - —
Perfume grade, bots. .....lb. 1.00 - 2.00
Decyl alcohol, normal (see l-Decanol).
Deertongue leaves, bls. .....lb. .55 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss...ton.57.07 - —
18% P, paper bgs., c.l., works. ton.66.25 -71.80
19% P, paper bgs., c.l., t.l., works, Houston, Tex..ton.74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.

Degras, common (15-17% free fatty acid), 400-lb. dms lb. .13 - .14
Neutral (over 2% free fatty acid), 400-lb. dms lb. 13 - —
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies, gal. .69½- —
dms., l.c.l., same basis .....gal. .74½- .80½
tanks, dlvd., same basis....gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .72 - —
dms., l.c.l., same basis.....gal. .77 - .83
tanks, same basis .....gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis ..gal. .75½- .81½
tanks, same basis .....gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies gal. .69 - —
dms., l.c.l., same basis ..gal. .74 - .80
tanks, same basis .....gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis ..gal. .73 - .79
tanks, same basis .....gal. .52 - —
Denatured alcohol, ethyl, SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis ..gal. .75½- .81½
tanks, same basis .....gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis ..gal. .76 - .82
tanks, same basis .....gal. .55 - —
Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies gal. .69½- —
dms., l.c.l., same basis ..gal. .74½- .80½
tanks, same basis .....gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis ..gal. .73 - .79
tanks, same basis .....gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis ..gal. .76 - .82
tanks, same basis .....gal. .55 - —
SD-40, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis..gal. .75½- .81½
tanks, same basis .....gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb..15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l. .....100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. .....100 lbs. 9.37 - —
indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.12 - —
paper bgs., l.c.l. .....100 lbs. 9.27 - —
white, paper bgs., c.l..100 lbs. 8.96 - —
paper bgs., l.c.l. ....100 lbs. 9.11 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.
Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs., l.c.l. .....100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms .100 lbs.14.70 - —
100-lb. dms. .....100 lbs.15.20 - —
Hydrated, coml., bgs., c.l., ex whse 100 lbs. 7.45 - —
bgs., c.l., ex whse ....100 lbs. 7.60 - —
USP, dms. .....lb. .19¾- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13 - —
Tech., dms., c.l., dlvd. .....lb. .15 - —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
Diacetyl, flavor grade, bots. ....lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works .....lb. .33 - —
tanks, works .....lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works .....lb. .33 - —
tanks, works .....lb. .29½- —
Diallylamine, dms., c.l., dlvd. ....lb. .98½- —
dms., l.c.l., dlvd. .....lb. 1.00 - —
tanks, dlvd. .....lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis.....lb. .94 - —
tanks, same basis.....lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
l.t.l., dms., same basis .... lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., l.t.l., same basis .....lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. ...lb. .57 - —
dms., l.c.l., same basis.....lb. .60 - —
tanks, same basis .....lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E .....lb. .33 - —
tanks, dlvd. E.....lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E .....lb. .33 - —
tanks, dlvd. E.....lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .31 - —
dms., l.c.l., same basis.....lb. .32½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works.....lb. .68½- —
tanks, works .....lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld .lb. .65½- —
Dibutylamine, dms., c.l., dlvd. .lb. .55½- —
dms., l.c.l., same basis.....lb. .57 - —
tanks, same basis .....lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. .....lb. .29 - —
tanks, dlvd. .....lb. .25 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works.....lb. .63½- .64
tanks, works .....lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld..lb. .73 - —

Highest toluene dilution ratio

with National® NADONE®

(CYCLOHEXANONE)

One of the most powerful solvents available at a volume-production price, NADONE Cyclohexanone can cut the overall cost of solvent systems for organic coatings.

The addition of a small percentage of NADONE permits an increase in the volume of diluent that can be successfully incorporated in the solvent system. In nitrocellulose lacquers, for instance, NADONE solutions have a 6.3 toluene dilution ratio. Comparably high ratios obtain for other resins and diluents.

Conversely, NADONE solvent power makes possible higher solids content in resin-solution formulations.

An added advantage: Inclusion of NADONE prevents separation of resins and oils in solution and during evaporation of solvent from the film.

*U.S. Patent 2,389,608

Other interesting, cost-saving uses of NADONE are:

- As a detergent-additive in lube oils to minimize carbon and sludge formation.*
- To improve fractional solvent extractions.
- As a degreasing solvent or fortifier for lower-power degreasers.
- To make better paint removers, inks, adhesives, pesticides, etc., etc.

WRITE FOR TECHNICAL BULLETIN I-19A

This 32-page bulletin gives details on these and other applications of NADONE, contains complete properties, reactions and a valuable list of 148 literature references. We'll gladly send you a copy of this bulletin and, if you wish, a liberal working sample of NADONE for your investigations.

NATIONAL ANILINE DIVISION
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Allied Chemical

o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 • —
p-Dichlorobenzene, dms., c.l., f.o.b. works, frt. alld. E lb. .12 • —
dms. 2,000 lbs. or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works lb. .34 • —
tanks, works lb. .32 • —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis lb. .17 • —
tanks, same basis lb. .13 • —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 • —
dms., l.c.l., same basis lb. .75 • —
Dichloropentanes, dist., dms., c.l., works lb. .05 • —
dms., l.c.l., works lb. .06 • —
tanks, works lb. .03 • —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms., c.l., works. lb. .54 • —
dms., l.c.l., works lb. .55 • —
tanks, works lb. .52 • —
Dicyclohexyl phthalate, gran., fib. dms., c.l., works, frt. alld. lb. .46½- —
fib. dms., l.c.l., same basis lb. .48 • —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis lb. .14¾- —
tanks, same basis lb. .12 • —

Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 • —
tankcars, tanktrucks, 2,000 gals. lb. .26 • —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., dlvd. lb. 1.85 • —
dms., l.c.l. dlvd. lb. 1.90 • —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 • —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. lb. .28½- —
tanks, frt. alld. lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 • —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½- —
dms., l.c.l., dlvd. lb. .71 • —
tanks, dlvd. lb. .67 • —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 • —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 • —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 • —

Diethyl sulfate, dms., c.l., works lb. .19¼- —
dms., l.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 • —
dms., l.c.l., same basis lb. .59 • —
Diethyl toluamide, 80-95% meta isomer dms., c.l., t.l., works. lb. 2.30 • —
5-44 dm. lots, works lb. 2.35 • —
1-4 dm. lots, works lb. 2.40 • —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 • —
Diethylamine, dms., c.l., dlvd. E lb. .52 • —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 • —
dms., l.c.l., same basis lb. .58 • —
tanks, same basis lb. .55 • —
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E. lb. .17¾- —
dms., l.c.l., same basis lb. .19¼- —
tanks, same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., l.c.l., works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works lb. .32¼- —
tanks, dlvd. E. lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, dlvd. E. lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd. lb. .24 • —
tanks, dlvd. E. lb. .20 • —

Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 • —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 • —
dms., l.c.l., dlvd. lb. .22½- —
tanks, dlvd. E. lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 • —
dms., l.c.l., dlvd. E lb. .45½- —
tanks, dlvd. E. lb. .41½- —
Diethylstilbesterol, USP, bots., 10-kilo lots kilo. 100.00 -147.50
bots, 1-kilo lot kilo. 110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.25 • —
Digitoxin, USP, bots. gram. 4.20 • —
Diglycol laurate, dms. lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 • .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 • —
Dihexyl sebacate, dms., c.l., works. lb. .66 • —
dms., l.c.l., works lb. .67 • —
tanks, works lb. .64 • —
Dihydrazine sulfate, dms., works lb. 1.10 • 1.25
Dihydrostreptomycin sulfate, bulk. gram. .035 • .036
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 • —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane pure, dms lb. 2.55 • —
Tech., dms., 20,000 lbs. or more lb. 1.11 • —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 • —
dms., 150 lbs. to 1,050 lbs. lb. 1.15 • —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 • —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 • —
dms., l.c.l., dlvd. E lb. .11½- —
tanks, dlvd. E. lb. .08 • —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .28½- —
dms., l.c.l., same basis lb. .30 • —
tanktrucks, 1,000-1,999 gals., dlvd. lb. .26½- —
tankcars, tanktrucks, 2,000 gals., dlvd lb. .26 • —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 • —
dms., l.c.l., works lb. .62½- .63
tanks, works lb. .60 • —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 • —
tanks, same basis lb. .48 • —
Dillweed oil, dom., bots., dms lb. 3.75 • 4.80
Dimethyl anthranilate, cns. lb. 4.15 • —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.50 • —
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd lb. 1.225 • —
dms., l.c.l., dlvd. lb. 1.235 • —
tanks, dlvd. lb. 1.20 • —
70% dms., c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis. lb. .69½- —
tanks, dlvd., 100% basis lb. .66 • —
Dimethyl hydroquinone, dms. lb. 1.90 • 2.20
Dimethyl phthalate, dms., c.l., works lb. .28½- —
dms., l.c.l., works lb. .30 • —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
tankcars, tanktrucks. 2,000 gals., same basis lb. .26 • —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 • —
dms., l.c.l., works lb. 1.30 • —
tanks, works lb. 1.28 • —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .18 • —
dms., l.c.l., works lb. .18½- —
tanks, works lb. .15 • —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 • —
dms., l.c.l., frt. equald. 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 • —
40% soln., dms., c.l., frt. equald. 100% basis lb. .35 • —
dms., l.c.l., frt. equald. 100% basis lb. .35½- —
tanks, frt. equald, 100% basis. lb. .28 • —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 • —
dms., l.c.l., same basis lb. .29 • —
tanks, same basis lb. .26 • —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 • .34
tanks, works lb. .30 • —
2,4-Dinitroaniline, dms., frt. alld lb. .75 • —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.56 • —
Dinitroaniline orange toner prices 1c higher W. of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 • —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 • —
2,4-Dinitrophenol bbls. lb. .41 • —
2,4-Dinitrotoluene, oil, dms. lb. .11 • —
Refd., 63°C., dms. lb. .23 • —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 • —
Dioctyl phthalate, dms., c.l., frt. alld lb. .28½- —
dms., l.c.l., frt. alld lb. .30 • —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 • —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
dms., l.c.l., works lb. .62¼ —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., dlvd. E lb. .31½- —
dms., l.c.l., dlvd. E lb. .33 • —
tanks, dlvd. E. lb. .29 • —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 • —
bgs., l.c.l., l.t.l., dlvd. E. lb. .41 • —
Dipentene, dest.-dist., dms., c.l., works gal. .58 • —
dms., l.c.l., works lb. .62 • —
dms., l.c.l., ex whse. gal. .78 • —
tankscars, works gal. .41 • —
Steam dist., dms., c.l., works, South gal. .72 • —
dms., l.c.l., dlvd. New York gal. .91 • —
tanks, works, South lb. .55 • —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 • —

MONTROSE
CHEMICAL COMPANY
100 LISTER AVENUE
NEWARK, NEW JERSEY

Dimethyl Isophthalate

Trimethyl Borate — Trimethoxy Boroxine

T.C.P. — Tricresyl Phosphate

Cresyl Diphenyl Phosphate

D.D.T. — Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28% — 40%

D.D.V.P. — Dimethyl Dichloro Vinyl Phosphate
(Minimum 95% Purity)

Triphenyl Phosphate

EXCLUSIVE SALES AGENTS

R. W. GREEFF & CO., INC.
10 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.
1721 TRIBUNE TOWER, CHICAGO, ILLINOIS

Diphenolic polyether acids, 1,000-lb. or more, bgs., works..lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works....lb. .16¾ - —
bgs., l.c.l., works ..... lb. .18½ - —
tanks, works ..... lb. .15¾ - —
Diphenyl oxide, perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .51¾ - —
dms., l.c.l., works ..... lb. .53¾ - —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald..lb. .31 - —
bgs., l.c.l., same basis..... lb. .33 - —
Refd., fused, tanks, same basis lb. .28 - —

Refd., diphenylamine in dms., ½c. per lb. higher.

Diphenylguanadine, bgs., dms., ton lots, frt. alld..lb. .49 - —
bgs., smaller lots, frt. alld..... lb. .50 - —
Diphenylhydantoin-sodium, USP, dms..lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld..lb. .17 - —
dms., l.c.l., frt. alld. ..... lb. .18½ - —
tanks, frt. alld. ..... lb. .14¼ - —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E..lb. .20 - —
dms., l.c.l., same basis..... lb. .21½ - —
tanks, same basis ..... lb. .18½ - —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works..lb. 1.45 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld..lb. .69 - —
dms., smaller lots, frt. alld ..lb. .70 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld..lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald..lb. .20 - —
dms., l.c.l., same basis..... lb. .21 - —
tanks, same basis ..... lb. .19 - —
50-60%, dms., c.l., works, 100% basis..lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis ..... lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E..lb. .75 - —
dms. l.c.l., l.t.l., same basis..lb. .76 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald..lb. .134 - —
dms., l.c.l., same basis..... lb. .144 - —
tanks, same basis..... lb. .11 - —
Dodecylphenol, c.l., frt. alld. ..... lb. .22 - —
dms., l.c.l., same basis..... lb. .23 - —
tanks, same basis..... lb. .19½ - —

Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1.....lb.15.65 -17.60
No. 2 .....lb.15.65 -17.60
Green, FD&C, No. 1.....lb.15.65 -17.60
No. 2 .....lb.19.60 -22.85
No. 3 .....lb.31.30 -35.90
Red, FD&C, No. 1 .....lb. 5.90 - 7.85
No. 2 .....lb. 3.30 - 4.10
No. 3 .....lb.19.60 -22.85
No. 4 .....lb. 5.55 - 7.50
Violet, FD&C, No. 1.....lb.15.65 -17.60
Yellow, FD&C, No. 1 .....lb. 9.15 -11.05
No. 5 .....lb. 3.30 - 4.10
No. 6 .....lb. 3.30 - 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 .....lb.10.50 -10.95
Brown, D&C, No. 1 .....lb.15.65 -16.10
Green, D&C, No. 5 .....lb.15.65 -16.10
No. 6 .....lb.15.65 -16.10
No. 7 .....lb.14.35 -14.80
Orange, D&C, No. 3 .....lb.10.50 -10.95
No. 4 .....lb.19.60 -20.05
No. 5 .....lb. 3.80 - 4.25
Red, D&C, No. 17 .....lb.10.50 -10.95
No. 18 .....lb.23.60 -24.00
No. 19 .....lb.15.00 -15.45
No. 21 .....lb. 3.90 - 4.35
No. 22 .....lb.10.50 -10.95
No. 28 .....lb.24.15 -24.65
No 33 .....lb.17.00 -17.45
Violet, D&C, No. 2 .....lb.15.65 -16.10
Yellow, D&C, No. 7 .....lb.10.50 -10.95
No. 8 .....lb.10.50 -10.95
No. 10 .....lb.13.05 -13.50
No. 11 .....lb.13.05 -13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1.....lb.15.65 -16.10
Green, Ext., D&C, No. 1.....lb.15.65 -16.10
Red, Ext., D&C, No. 1.....lb.13.05 -13.50
Yellow, Ext, D&C, No. 1.....lb.10.50 -10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN.....lb. 1.79 - —
13390 Fast blue SR.....lb. 1.43 - —
14025 Yellow 2G.....lb. 1.26 - —
14030 Orange R, extra, conc. ..lb. 1.64 - —
14645 Chrome black T.....lb. .77 - —
14720 Rubine XX, conc. .....lb. 1.59 - —
15510 Orange Y, extra conc. ..lb. .83 - —
15575 Orange RR.....lb. .99 - —
15620 Fast Red A, conc .....lb. 1.61 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL .....lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb. 1.26 - —
16230 Fast light, orange 2G....lb. 1.39 - —
17590 Brown PG .....lb. 3.00 - —
18050 Phloxine 2G .....lb. 1.05 - —
18055 Fuchsine 6B .....lb. 1.55 - —
18965 Fast yellow 2G .....lb. 2.32 - —
19140 Yellow XX .....lb. 2.48 - —
19555 Yellow NN, conc. .....lb. 3.67 - —
20170 Brown Y .....lb. 1.33 - —
20470 Blue black, extra, conc..lb. 1.44 - —
21010 Brown, RX, conc. .....lb. 1.35 - —
22240 Scarlet B .....lb. 2.81 - —
22310 Red FC .....lb. 1.57 - —
22311 Brown MCW .....lb. 1.47 - —
22610 Blue 2B, extra conc. ....lb. 1.53 - —
23500 Red, 4BX, conc. .....lb. 1.80 - —
24410 Sky blue FF, extra, conc.lb. 1.95 - —
24895 Brilliant yellow, conc. ..lb. 3.27 - —
26360 Navy blue 3R, conc. .....lb. 1.84 - —
26695 Black F, conc. .....lb. 2.30 - —
26900 Milling Red 3R, conc.....lb. 2.24 - —
27075 Neutral black 2B, conc..lb. 2.75 - —
27720 Gray L .....lb. 2.18 - —
29185 Fast scarlet 4BNC.....lb. 2.23 - —
30015 Diazo black VJ conc. ....lb. 2.48 - —
30045 Yellow brown K, extra..lb. 1.26 - —
30235 Black EB, 200%.....lb. 1.33 - —
30295 Green BY, conc. .....lb. 1.07 - —
35660 Brown B .....lb. 2.89 - —
37565 Naphthol SWF .....lb. 1.85 - —
40000 Yellow 2G .....lb. 1.44 - —
41000 Yellow OX .....lb. 2.45 - —
42000 Green V, crystals.....lb. 2.73 - —
42040 Brilliant green G crystals.lb. 3.62 - —
42090 Blue EG .....lb. 1.85 - —
42100 Milling green 6B, conc. ..lb. 4.78 - —
42640 Violet 4BXN .....lb. 2.43 - —
43830 Brilliant blue, BBG.....lb. 2.44 - —
44045 Blue B, extra conc. ....lb. 3.61 - —
45170 Red BX .....lb. 4.76 - —
50415 Nigrosine SSJ .....lb. 1.03 - —
52015 Blue GXX .....lb. 2.33 - —
58005 Alizarin red SC .....lb. 3.64 - —
59700 Golden orange GFD, single paste..lb. 2.70 - —
59710 Flaming orange 6RD double powder..lb. 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC supra, double paste..lb. 1.50 - —
61570 Alizarin green CG, extra lb. 3.81 - —
63010 Alizarin blue SAPG ....lb. 3.90 - —
63615 Alizarin blue black B....lb. 3.26 - —
69825 Blue BLFD double paste lb. 2.82 - —
70800 Brown BR single paste..lb. 2.03 - —

Dyes, coaltar, oil-soluble, 100-lb. drums, dlvd. No.
12140 Oil scarlet BL .....lb. 1.67 - —
12055 Oil orange 7078 V .....lb. 1.38 - —
26120 Oil red N 1700 .....lb. 1.94 - —
42535B Methyl violet base.....lb. 1.88 - —
44045B Victoria blue base ....lb. 4.06 - —
50415B Oil black 8603 .....lb. .80 - —
61565 Alizarin cyanine green base. lb. 6.13 - —
Spirit black RB .....lb. 3.89 - —
Spirit brown GN .....lb. 5.30 - —
Spirit orange R conc. ....lb. 5.87 - —
Spirit red B conc .....lb. 6.41 - —
Pr. 517 Spirit yellow 2R conc..lb. 4.62 - —
Pr. 534 Spirit blue THN.....lb. 5.06 - —

E

Echinacea root, bls. .....lb. 1.25 - —
Elm bark, grinding, bls. .....lb. .30 - .32
Powd., bbls., bxs.....lb. .60 - —
Select, bundles.....lb. .75 - —
Emetine hydrochloride, USP, bots. oz.48.40 - —
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd..lb. 2.70 - —
Eosin red toner, bbls., works....lb. 1.95 - —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots..oz. .98 - 1.00
hydrous, bots., 100-oz. lots. oz. .92 - —
Ephedrine hydrochloride, NF, dms., 100-oz. f.o.b. works..oz. .72 - —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works..oz. .73 - —
USP, powd., dms., 100-oz., same basis..oz. .73 - —
Epichlorohydrin, dms., c.l., dlvd..lb. .29½ - —
dms., l.c.l., dlvd. .....lb. .31 - —
tanks, dlvd. .....lb. .27 - —

l-Epinephrine base, syn., USP, bots., 100 gram. lots..gram. .58 - —
Epsom salt (see Magnesium sulfate).
Ergot, NF, dms., tin-lined .....lb. 1.00 - 1.25
Eserine salicylate, bots. .....oz.44.00 - —
Eserine sulfate, bots. .....oz.86.00 - —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va..lb. .18½ - —
Wood-rosin type, dms., c.l., same basis..lb. .18½ - —
Ether (see specific product).
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd..lb. .15 - —
dms., l.c.l., dlvd. .....lb. .16½ - —
tanks, dlvd. .....lb. .12½ - —
95-98%, dms., c.l., dlvd. ..lb. .15¼ - —
dms., l.c.l., dlvd. .....lb. .16¾ - —
tanks, dlvd. .....lb. .12¾ - —
Ethyl acetate, nat., ferment, 99%, dms., c.l., dlvd..lb. .15½ - —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13 - —
syn., 85-88%, dms., c.l., dlvd..lb. .15 - —
dms., l.c.l., dlvd. .....lb. .16½ - —
tanks, dlvd. .....lb. .12½ - —
Ethyl acetate, syn., 95-98%, dms., c.l., dlvd..lb. .15¼ - —
dms., l.c.l., dlvd.....lb. .16¾ - —
tanks, dlvd. .....lb. .12¾ - —
99%, dms., c.l., dlvd. .....lb. .15½ - —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13 - —

Ethyl acetoacetate, dms., c.l., dlvd. lb. 58¼ - —
dms., l.c.l., dlvd. .....lb. .60 - —
tanks, dlvd. .....lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 - —
dms., l.t.l., dlvd. .....lb. .37 - —
tanks, dlvd. .....lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies..gal.20.63 - —
dms., l.c.l., same basis..gal..20.73 -20.84
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis..gal. .78 - .89
tanks, same basis.....gal. .52 - —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies..gal.21.75 - —
dms., l.c.l., same basis..gal.21.85 -21.96
tanks, same basis.....gal.21.59 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., same basis .....lb. .21½ - —
tanks, same basis .....lb. .17½ - —
Ethyl benzoate, bots. .....lb. .75 - 1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E..lb. .43 - —
dms., l.c.l., frt. alld. E...lb. .45 - —
tanks, frt. alld. E.....lb. .41 - —

IN YOUR IMPROVED PRODUCTS...

Jefferson Propylene Glycol and Dipropylene Glycol go to a picnic

Makes you wonder how they used to have picnics. This current American pastime is filled with your practical applications for Jefferson Propylene Glycol and Dipropylene Glycol . . . reinforced plastics of the boat and water skis, sun tan lotion, flavoring in the soft drinks and food, brake fluids, printing ink, plastic tablecloth, cigarettes, beverage cooler insulation, and insecticide.

The very low toxicity of propylene glycol leads to its wide usage in foods, pharmaceuticals, and cosmetics. Dipropylene glycol is superior as a coupling agent or mutual solvent for normally immiscible liquids. It is most useful where a glycol of lower volatility and hygroscopicity is required. Both glycols are now available from Jefferson in the grades and quantity desired . . . tank cars or wagons, or 55-gallon drums. For complete information or technical services, write to Jefferson Chemical Company, 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

Ethylene and Propylene Oxides, Glycols, Dichlorides, Carbonates
SURFONIC® Surface-Active Agents • Ethanolamines • Morpholine
N-Alkyl Morpholines • Polyethylene and Polypropylene Glycols
Piperazine • Piperazine Salts • Nonyl Phenol • Caustic Soda
HOUSTON • NEW YORK • CHICAGO • CLEVELAND • CHARLOTTE • LOS ANGELES

JEFFERSON CHEMICALS

608

Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms. l.c.l., t.l. works lb. .36¾- —
tanks, works lb. .34 - —
Ethyl butyrate dms., works lb. .85 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000 lb lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots, frt. alld E lb. 75 - —
Vis 10 20 50 100, 150 cps., bgs., 5,000-lb lots or more, frt. alld E lb. 68 - —
bgs., smaller lots, frt. alld E. lb. .70 - —
Ethyl chloride tech., cyls., works. lb .20 - 22
dms., works lb. 18 20
tanks, works lb. .10 —
Ethyl cinnamate cns. lb. 3.35 - 3.50
Ethyl ethanolamies, mixed, dms., c.l., dlvd. E lb. .43½- —
dms., l.c.l., dlvd. E lb. .44½- —
tanks, dlvd. E lb. .41½- —
Ethyl ether, absolute, ACS, dms lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns lb 1.01 - —
½-lb. cns lb 1.09 - —
¼-lb. cns. lb. 1.21 - —
Indust., dms., c.l. dlvd. lb. .13½- —
dms., l.c.l., dlvd. E. lb. .15 - —
tanks, dlvd E. lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., t.t.l., dlvd. E lb. .38½- —
tanks, dlvd. E. lb. .34½- —

2-Ethyl hexoic acid, 1c. higher W. of Rockies.
2-Ethyl hexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .42½- —
dms., l.t.l., same basis lb. .43½- —
tanks, same basis lb .40 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms., c.l., dlvd. lb. .23¾- —
dms., l.c.l, dlvd lb. .25¼- —
tanks, dlvd lb .21¼- —
Ethyl iodide, chys., works lb 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald lb .52 - —
dms., l.t.l., frt. equald lb .52½- —
tanks, frt equald lb .50 - —
Ethyl morphine hydrochloride, USP. bots oz. 11.85 - —
Ethyl oenanthate, dms lb 1.05 - 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate 40% available SiO, dms., c.l., dlvd lb. .44½- —
dms., l.c.l., dlvd lb. .46 - —
tanks, dlvd lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works lb. 1.04 - —
N-Ethyl-m-toluidine, tech., liq., tanks frt. alld lb .83 - —
N-Ethyl-o-toluidine, bbls lb. .88 - —
Ethylamine (see Mono-, Di-, or Tri-)
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alld lb. .58 - —
tanks, frt. alld lb. .55 - —

Ethylbenzene, 99%, dms., c.l., t.l., frt. equald lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 - —
Ethylene, contract, refy. gate lb. .0475- .0525
Ethylene dibromide, dms., c.l., frt. equald lb. .30½- —
dms., l.c.l., frt. equald lb. .31½- —
tanks, frt. equald lb. .28½- —
Ethylene dichloride, dms., c.l., dlvd. lb. .11½- —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E lb. .22 - —
dms., l.c.l., dlvd. E lb. .23½- —
tanks, dlvd. E lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., l.c.l., dlvd. E lb. .20½- —
tanks, dlvd. E lb. .17 - —
Ethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —

Ethylene glycol monomethyl ether acetate, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., dlvd. E lb. .29¾- —
tanks, dlvd. E lb. .27 - —
Ethylene glycol monostearate, triple pressed, dms lb. .33 - .38
Ethylene oxide, dms., c.l., dlvd. E. lb. .21½- —
dms., l.c.l., dlvd. E lb. .24½- —
tanks, dlvd. E lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms., l.c.l., dlvd. E., 100% basis. lb. .43 - —
tanks, dlvd. E., 100% basis lb. .40 - —
lots and over lb. 6.75 - —
200-lb. lots and over lb. 7.00 - —
100-lb. lots and smaller lb. 7.30 - 7.40
Ethylvanillin, 100-lb. fib. dms., 500-lb. lb. .85 - 1.40
Eucalyptol, USP, cns., dms lb. .85 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .44 - .55
NF, rectified, 80-85%, dms. lb. .53 - .62
Eugenol, tech., dms lb 1.45 - —
USP, dms. lb. 2.00 - —
Euphorbia herb, bls lb. .12 - .15

F

F salt paste, tech. dms., works lb. 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton. 19.50 - —
Feldspar in bags $3 per ton higher
Fennel oil, sweet, USP, cns lb. 1.95 - 2.25
Fennel seed, Argentine, bgs lb. .16 - —
French, light, bgs lb. .16 - —
Indian, light, bgs lb. .17½- —
Rumanian, bgs lb. .14 - —
Yugoslav, light, bgs lb. .16½- —
Fenugreek seed, Moroccan, bgs lb. .08 - —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l. works 100 lbs. 8.50 - —
Ferric chloride, indust., cryst., bbls., c.l., works 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% basis 100 lbs. 4.00 - —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate gran., dms lb. .86 - —
Ferric hypophosphite, NF, dms lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. .89 - —
Ferric oxides (see iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms. lb. .70 - —
Ferric resinate, 6¾% Fe., dms., ton lots, frt. alld lb. .40¼- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt alld lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton. 35.25 - —
bgs., l.c.l., works ton. 36.25 - 42.25
bulk, c.l., works ton. 33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29¼
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34¼
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29¼
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton. 34.50 - —
bgs., l.c.l., dlvd, Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton. 40.00 - —
bulk, c.l., works ton. 27.00 - —
USP, cryst., bbls., dms lb .09½- .10
Fir balsam, Canada, bbls gal. 32.00 - 35.00
Oregon, bbls gal. 3.40 - 4.64
Fir oil, Canada, cns lb. 1.75 - 2.50
Fish oil, refd., alkali, dms lb. .1250- .1300
Kettle-bodied, dms. lb. .1480- .1520
Light-pressed, dms. lb. .1100- .1150
tanks lb. .09½- —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. .12 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 92.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 88.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo lots or more gram .30 - .44
10% feed grade, fib. dms., 3 kilos or more kilo. 30.00 - 44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd lb. .0695- —
tanks, dlvd. lb. .0430- —
Formaldehyde, methanol-free (uninhibited), tanks, dlvd lb. .0375- —
Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls lb. .65 - .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .23¼- —
dms., l.c.l., frt. equald lb. .24¾- —
Fumaric acid in bags ½c. per lb. less.
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd. E lb. .11½- —
tanks, dlvd. W lb. .12½- —
Furfuryl alcohol, cns., works lb. .28 - —
dms., c.l., t.l., Newark, N. J. lb. .20½- —
dms., l.c.l., t.t.l., Newark, N. J lb. .21½- —
dms., c.l., t.l., Memphis, Tenn lb. .19 - —
dms., l.c.l., t.t.l., Memphis, Tenn. lb. .20 - —
tanks, Memphis, Tenn. lb. .175 - —
Fusel oil, refd., dms., c.l., dlvd lb. .18 - —
dms., l.c.l., dlvd. lb. .19½- —
tanks, dlvd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid, NF, VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld lb. 1.75 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —

HARSHAW

MELETEX

WATER DISPERSED **DRIERS** FOR WATER DISPERSED PAINTS

Completely free of volatile solvents
uniform and stable water dispersions
of very finely divided Metal Naphthenates
MELETEX Driers
exceedingly effective and readily used
in Emulsion Paints and Latex Compounds
to meet modern demands for high quality films:

MELETEX COBALT	5%*
MELETEX LEAD	20%*
MELETEX MANGANESE	5%*

IMMEDIATE ATTENTION
will be given your particular requirements for drying or curing any water-thinned film forming product.

*Pat. Pending

SAMPLES
and further information will be gladly furnished ON REQUEST.

HARSHAW

THE HARSHAW CHEMICAL COMPANY
1945 EAST 97TH STREET • CLEVELAND 6, OHIO
CHICAGO • CINCINNATI • CLEVELAND • DETROIT • HOUSTON • LOS ANGELES
MARKUS-ON-HUDSON, N. Y. • PHILADELPHIA • PITTSBURGH

Gelsenium root, bls.	lb.	.30	.35
Gentian root, bls.	lb.	.24	—
Grd., bbls., bxs.	lb.	.30	—
Powd., bbls., bxs.	lb.	.30	—
Geraniol, extra, cns., dms.	lb.	1.75	2.40
Soap grade, dms.	lb.	.90	1.75
Standard, cns., dms.	lb.	1.65	—
Synthetic, dms.	lb.	1.30	—
Geranium oil, Algerian, cns.	lb.	23.00	—
Bourbon, cns.	lb.	28.00	—
Geranium oil, Turkish (see Palmarosa oil).			
Geranyl acetate, cns.	lb.	1.90	2.70
Synthetic, dms.	lb.	1.45	—
Ginger oil, dist., bots.	lb.	11.50	14.00
Ginger oleoresin, NF, from African root, bots.	lb.	4.25	5.00
NF, from Jamaican root, bots.	lb.	7.75	—
Ginger root, Cochin, bgs.	lb.	.29	—
Jamaican, No. 3, bgs.	lb.	.28	—
Nigerian, split, bgs.	lb.	.20	—
Sierra Leone, bgs.	lb.	.35½	—
Glauber's salt (see Sodium sulfate).			
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works	lb.	.20	—
dms., l.c.l., f.o.b. works	lb.	.21	—
tanks, f.o.b. works	lb.	.17	—
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd.	lb.	.16	—
131 jellygrams, bgs., c.l., same basis	lb.	.16½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
191 jellygrams, bgs., c.l., same basis	lb.	.19½	—
222 jellygrams, bgs., c.l., same basis	lb.	.21	—
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis	lb.	.15	—
86 jellygrams, bgs., c.l., same basis	lb.	.16	—
115 jellygrams, bgs., c.l., same basis	lb.	.16½	—
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis	lb.	.17½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
180 jellygrams, bgs., c.l., same basis	lb.	.19½	—
200 jellygrams, bgs., c.l., same basis	lb.	.20½	—
Bone glue, l.c.l., prices 2c. higher.			
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd.	lb.	.18	—
95-149, bgs., c.l., dlvd.	lb.	.19	—
122-149, bgs., c.l., dlvd.	lb.	.20½	—
150-177, bgs., c.l., dlvd.	lb.	.22½	—
178-206, bgs., c.l., dlvd.	lb.	.25	—
Glue, hide, 207-236, bgs., c.l., dlvd.	lb.	.28	—
237-266, bgs., c.l., dlvd.	lb.	.30½	—
267-298, bgs., c.l., dlvd.	lb.	.32½	—
299-330, bgs., c.l., dlvd.	lb.	.34½	—
331-362, bgs., c.l., dlvd.	lb.	.36½	—
363-394, bgs., c.l., dlvd.	lb.	.38	—
395-427, bgs., c.l., dlvd.	lb.	.40	—
428-460, bgs., c.l., dlvd.	lb.	.42	—
461-494, bgs., c.l., dlvd.	lb.	.44	—
495-529, bgs., c.l., dlvd.	lb.	.46	—
Hide glue, l.c.l., prices 2c. higher.			
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld.	lb.	1.80	—
fib. dms., 25-lb. lots, frt. alld.	lb.	1.88	—
l-Glutamine, bots., 1-9 kilo lots,	kilo.	150.00	300.00
Bots., 50-kilo lots	kilo.	100.00	—
Bots., 500-kilo lots	kilo.	75.00	—
Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd.	lb.	.20½	—
nat., crude, soaplye, 80%, tanks, dlvd.	lb.	.18½	—
nat., refd., USP, CP, 99%, dms., c.l., dlvd.	lb.	.30⅞	—
dms., l.c.l., dlvd.	lb.	.31⅝	—
tanks, dlvd.	lb.	.29⅛	—
Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd.	lb.	.30	—
dms., l.c.l., dlvd.	lb.	.30¾	—
tanks, dlvd.	lb.	.28¼	—
nat., high gravity, dms., c.l., dlvd.	lb.	.30¾	—
dms., l.c.l., dlvd.	lb.	.31½	—
tanks, dlvd.	lb.	.29	—
Glycerine, dom., syn., dms., c.l., dlvd.	lb.	.31	—
dms., l.c.l., dlvd.	lb.	.31¾	—
tanks, dlvd.	lb.	.29¼	—
Imp., nat., crude, soapiye, 80%, c.i.f.	lb.	.17½	—
Glycina (see Aminoacetic acid).			
Glycerol (see Glycerine).			
Glycolic acid (see Hydroxyacetic acid).			
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works	lb.	.40	—
dms., l.c.l., same basis	lb.	.42	—
tanks, same basis	lb.	.39	—
Glyoxal, 30%, dms., c.l., works	lb.	.20½	—
dms., l.c.l., works	lb.	.21¼	—
tanks, works	lb.	.18	—
Golden seal root, NF, tested, bls.	lb.	3.10	—
Gramicidin, 1 to 5 kilos, f.o.b. works,	gram.	4.70	—
Grapefruit oil, dms.	lb.	4.50	—
Graphite, amorp., powd., bgs., fib. dms., ex whse	lb.	.06	.09¼
Cryst., 88-90%, powd., bgs., fib. dms., ex whse	lb.	.19	.21¼
90-92%, powd., bgs., fib. dms., ex whse	lb.	.21	.24¼
95-97%, powd., bgs., fib. dms., ex whse	lb.	.29	.31¼
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse	lb.	.29	.31
No. 2, 90-95%, bgs., fib. dms., ex whse	lb.	.29	.31
Grease, white, choice all hog, tanks, dlvd.	lb.	.07¼	.07⅜
Yellow, tanks, dlvd.	lb.	.04⅞	—
Grease oil, No. 1, dms., c.l.	lb.	.13¾	—
dms., l.c.l.	lb.	.14¾	.15¾
Extra winter, strained, dms., c.l.	lb.	.16¼	—
dms., l.c.l.	lb.	.17¼	.18¼
Prime, burning, dms., c.l.	lb.	.17¾	—
dms., l.c.l.	lb.	.18¾	.19¾
Grindelia robusta herb, bls.	lb.	.40	—
Guaiacol, NF, cryst., dms., tins	lb.	2.10	2.15
NF, liq., cbys., dms.	lb.	2.30	2.40
Guaiacwood oil, cns.	lb.	.65	.80
Guaiacol carbonate, NF VII, dms.	lb.	3.40	3.45

GREEN PIGMENTS

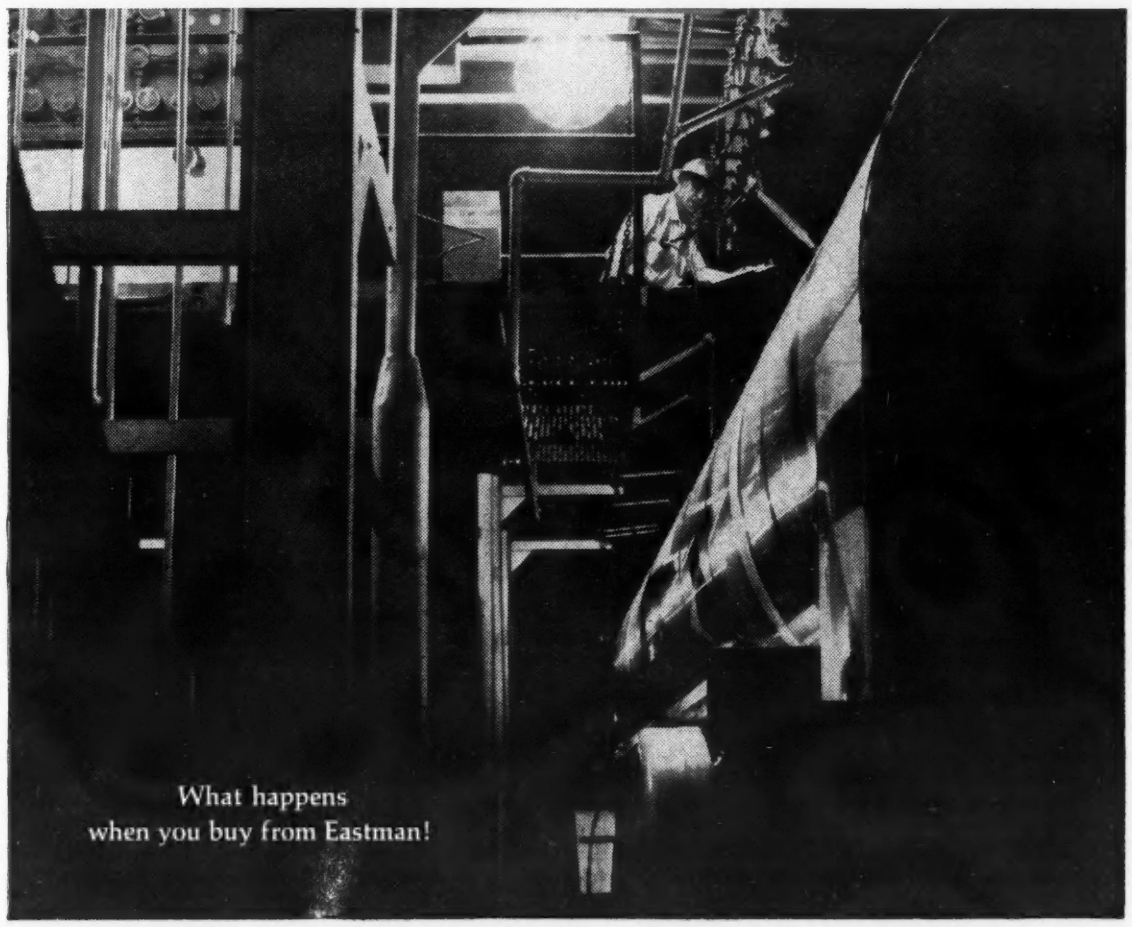
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Interested personal service⇒ always— when you buy from Eastman

Eastman Raw Materials for the Pharmaceutical Industry

acetaldehyde
acetanilide
acetic acid
acetic anhydride
acetone
benzoquinone
ethyl acetate
ethyl alcohol
isobutyl acetate
isobutyl alcohol
isobutyraldehyde
isopropyl acetate
Tenox® antioxidants
oxidized cellulose

For properties and shipping information on these and other Eastman products, see Chemical Materials Catalog, page 395, or Chemical Week Buyers' Guide, page 97.



"The customer was wrong...but we were right on time"

...recalls production supervisor, Acid Division

"It started with a phone call from one of our regional sales managers asking about a tank car of acetic anhydride that hadn't arrived at the customer's plant.

"Seems they were in full production on their line of antibacterial drugs. Anhydride supplies were running low and the purchasing agent was getting pretty uneasy.

"Well, we turned to the files to see what had happened, but we couldn't find the order. So we searched again and then we re-searched. Found an old office procedure we never knew we had—but not a trace of the order.

"Our sales office called the purchasing agent back and with considerable embarrassment told him we had looked high and low but simply couldn't find any record of the order. The purchasing agent comes back with—'Of course you couldn't find the order. One of our *ex*-employees forgot to mail it. It's still here in the office.'

"Then he told us their production units would have to shut down if they didn't get delivery by 8:00 A.M. on the second morning. Could we help them out.

"By this time the day was well along and our loading crew had already gone to dinner. We located two tank trucks in a hurry and recalled the crew who loaded the anhydride (that's me leaning on the clipboard) and had sample analyses run immediately. With the help of our friends over at the Mason-Dixon truck terminal the shipment went out that night.

"The trucks had sleeper cabs and two drivers. Driving night and day, they covered the run of more than 800 miles in time to arrive at the customer's receiving platform the next night—well in advance of our customer's deadline."

A typical delivery? No! But typical of the interested personal service you can always expect when you buy from Eastman.

Eastman CHEMICAL PRODUCTS, INC., KINGSPORT, TENNESSEE, Subsidiary of Eastman Kodak Company

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Boston; Buffalo; Chicago; Cincinnati; Cleveland; Detroit; Greensboro, North Carolina; Houston; Kansas City, Missouri; New York City; Philadelphia; St. Louis.
West Coast: Wilson & Geo. Meyer & Company, San Francisco, Los Angeles, Portland, Salt Lake City, Seattle.

Guar gum, food grade, bgs., c.l. lb. .38 - —
bgs., 5,000 lbs or more lb. .39 - —
Indust., bgs., c.l. lb. .32 - —
Tech grade, bgs. lb. .30 - .33

GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

B acid, dry, bbls., c.l., frt. alld., 100% basis lb. .90 - —
bbls., l.c.l., same basis lb. .95 - —
Hansa yellow, 10 G, bbls., dlvd. E. of Rockies lb. 2.45 - —
Hansa G yellow, pigment, bbls. lb. 2.20 - —
Hawthorn berries, bgs. lb. .18 - .20
Heliotropin, 100-lb. lots, dms. lb. 2.60 - 3.40
Hellebore root, dom., green, bls lb. .70 - .75
Helonias root, bls. lb. 1.50 - —
Hemlock oil, crs. lb. 2.55 - 3.00
Henbane leaves, bls lb. .40 - .45
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 - —
Houston, Texas gal. .1625- —
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works lb. 8.95 - —

Hesperidin methylchalcone, bots., 50-lb. lots, works lb. 22.50 - —
bots., 5-lb. lots, works lb. 23.00 - —
bots., 1-lb. lots, works lb. 23.50 - —
Hexachlorophene, dms., 1,100 lbs. or more lb. 1.84 - —
dms., to 1,100 lbs. lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City lb. .233 - —
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs., smaller lots, same basis lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib. dms., smaller lots, same basis lb. .253 - —
Hexamethylenetetramine, USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .48½
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston, Texas gal. .16 - —
1-Hexanol, dms., c.l., works lb. .35 - —
dms., l.c.l., works lb. .35¾- —
tanks, works lb. .33 - —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms., l.c.l., works lb. .76 - —

Hexyl salicylate, dms. lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd. lb. .17½- —
dms., l.c.l., dlvd. lb. .19 - —
tanks, dlvd. lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd. lb. 14.00 - —
dms., smaller lots, dlvd. lb. 14.50 - —
Homatropine hydrobromide, USP, bots. oz. 3.25 - —
Homatropine methylbromide, USP, bots. oz. 3.25 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton. 6.75 - —
Horehound herb, bls. lb. .18 - .20
Hydrastis (see Goldenseal).
Hydrazine hydrate, 85% ret. dms., works lb. 1.35 - 1.55
100%, ret. dms., works lb. 1.60 - 1.90
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb. 2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1 lb. .29¼- —
dms., l.c.l., dlvd. zone 1 lb. .29¾- .30¼
tanks, dlvd. zone 1 lb. .27¼- —

Zone 1 for hydroabieyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.

Hydrobromic acid, medicinal, 48%, cbys., frt. equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride).
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 2.90 - 3.05
tanks, works, frt. equald ton 28.00 - —
20°, cbys., c.l., works 100 lbs. 2.75 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.15 - —
tanks, works, frt. equald ton 30.00 - —

Hydrochloric acid, 22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.65 - —
tanks, works, frt. equald ton 35.00 - —
Hydrochloric acid, CP, USP, consumers, cbys., extra, c.l., works lb. .15¾- —
cbys., l.c.l., same basis lb. .17¼- .17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis. lb. .20¾- —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. 1.10 - 1.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.15 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works pt. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride).
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd 100 lbs. 19.25 - —
55-gal. dms., l.c.l., t.l., dlvd. 100 lbs. 20.75 - —
20-gal. dms., c.l., t.l., dlvd. 100 lbs. 21.00 - —
20-gal. dms., l.c.l., t.l., dlvd. 100 lbs. 22.50 - —
tanks, works frt. equald. 100 lbs. 13.40 - —

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.

Hydrofluosilicic acid, dms., works, 30% basis lb. .06 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 98%, tanks, works lb. .14 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls., dlvd W lb. .39 - —
tanks, works lb. .18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. lb. .82½- —
dms., l.c.l., dlvd lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l., dlvd lb. 2.59 - —
dms., l.t.l., dlvd. lb. 2.61 - —
Hydroxyacetic acid, tech., 70% dms., Philadelphia and Chicago lb. .11 - —
tanks, Belle W. Va. lb. .073 - —
Hydroxycitronellol, cns. lb. 4.85 - 5.75
Hydroxyethyl cellulose, add grades, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .84 - —
fib. dms., 2,000 to 19,999-lb. lots, same basis lb. .89 - —
fib. dms., 100 to 1,999-lb. lots, same basis lb. .93 - —
fib dms., smaller lots, same basis lb. 1.03 - —
Hyoscine salts (see Scopolamine).
Hyoscyamine hydrobromide, bots. oz. 7.00 - —
Hyoscyamine sulfate, bots. oz. 7.00 - —
Hypophosphorous acid, purif., 50%, 10-cbys., f.o.b. works lb. 1.95 - —
NF, 50%, 10-cbys., same basis lb. 1.35 - —

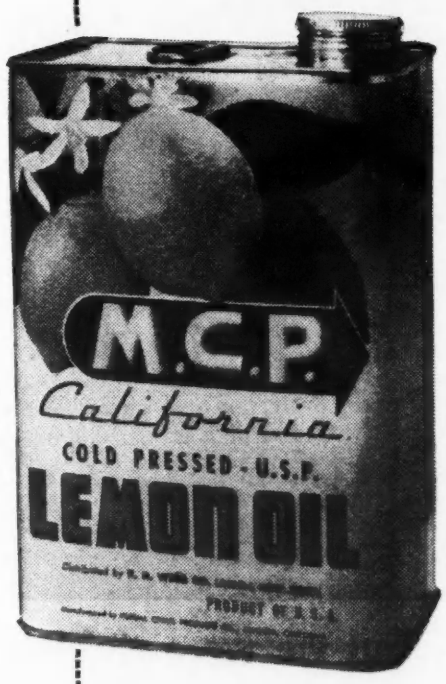
I

Ichthammol, NF, dms. lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.)
Indole, CP, bots. lb. 13.75 - 15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd. lb. 4.50 - —
Inositol, 50-lb. lbs., less than 1,000 lb., dlvd lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. lb. .95 - 1.10
Resub., USP, dms., f.o.b. works lb. 2.00 - 2.02
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., f.o.b. works lb. 4.90 - —
dms., 100-lbs., same basis lb. 5.05 - —
a-Ionone, cns. lb. 4.60 - 5.75
b-Ionone, cns lb. 4.15 - 6.15
Ipecac root, whole, bgs. lb. 8.00 - 8.50
Powd., bbls., bxs. lb. 9.50 - 10.00
Irish moss, bleached, prime, bls lb. .25 - .27
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .57 - —
bbls., l.c.l., ton lots, same basis. lb. .58 - —
bbls., smaller lots, same basis lb. .59 - —
Dom., reg., bbls., c.l., dlvd. E lb. .52 - —
Iron blue, alkali-resisting, dom., reg., bbls., l.c.l., ton lots, same basis lb. .53 - —
bbls., l.c.l., smaller lots, same basis lb. .54 - —
Imp., British, reg., bbls., c.l., dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb. .49 - —
bbls., l.c.l., smaller lots, same basis lb. .50 - —

Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.

Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs., l.c.l., works lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .06¼- —
bgs., l.c.l., works lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock lb. .06 Nom.
bbls., l.c.l., ex whse, New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., l.c.l. lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
other shades, same basis lb. .12 - .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .28 - —
tanks, same basis lb. .25 - —
Isoborneol, cns. lb. 1.44 - 1.80
Isobornyl acetate, cns. lb. .46 - .56
Isobornyl formate, dms. lb. 1.20 - —
Isobornyl proprionate, dms. lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns. lb. .35 - —

ONE LABEL — *First Grade Only*
ONE PRICE — *That Saves You Money*
. . . and Perfect Performance for *Every Purpose!*



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For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M.C.P. LEMON OIL is being *prepared and packed* under the M.C.P. label. There is only *one label* and *one* quality — *the highest* — for M.C.P. LEMON OIL. Yet, M.C.P. LEMON OIL costs you *less* . . . while providing a product that is unsurpassed for flavor, purity, and dependability . . . for *every* purpose.

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MUTUAL CITRUS PRODUCTS COMPANY
Since 1928 Growers and Processors of Citrus Products

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MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anaheim, Calif.

R. D. WEBB & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

Isobutyl acetate, solvent grade, dms., c.l., dlvd. E. of Rockies	lb.	.15¼	—
dms., l.c.l., same basis	lb.	.16¾	—
tanks, same basis	lb.	.12¾	—
Isobutyl alcohol, dms., c.l., dlvd	lb.	.15½	—
dms., l.c.l., dlvd.	lb.	.17	—
tanks, dlvd.	lb.	.13	—
Isobutylene, 99%, tanks, works	gal.	.38	—
Isobutyl isobutyrate, dms., f.o.b. works	lb.	.75	—
Isobutyraldehyde, CP, dms., c.l., dlvd	lb.	.27½	—
dms., l.c.l., dlvd.	lb.	.28½	—
Tech., dms., c.l., dlvd.	lb.	.22	—
dms., l.c.l., dlvd.	lb.	.23	—
tanks, dlvd.	lb.	.19½	—
Isobutyronitrile, dms., c.l., dlvd	lb.	.52	—
dms., l.c.l., same basis	lb.	.57	—
Isobutyric acid, dms., c.l., t.l., dlvd.	lb.	.35	—
dms., l.c.l., t.t.l., same basis	lb.	.36½	—
t.c. t.t., same basis	lb.	.33	—
Isoeugenol, cns.	lb.	3.40	4.25
Isoniazid, powd., bulk, kilo or more	kilo.	18.00	—
Isonicotinic acid, 100-lb. fib. dms., works	lb.	4.25	—
Isonicotinic acid hydrazide (see Isoniazid).			
Iso-octyl alcohol, dms., c.l., dlvd. E.	lb.	.23½	—
dms., l.c.l., dlvd. E.	lb.	.25	—
tanks, dlvd. E.	lb.	.21	—
Isopentane, com'l. grade, tanks, f.o.b. Tex. refy.	gal.	.16½	—
Isophorone, dms., c.l., works	lb.	.24½	—
dms., l.c.l., works	lb.	.25¼	—
tanks, works	lb.	.22½	—
Isophthalic acid, dms., c.l., works, frt. equald	lb.	.18	—
dms., l.c.l., same basis	lb.	.19	—
Isopropanol (see Isopropyl alcohol).			
Isopropyl acetate, dms., c.l., dlvd.	lb.	.14	—
dms., l.c.l., same basis	lb.	.15½	—
tanks, same basis	lb.	.11½	—
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd	gal.	.58	—
dms., l.c.l., dlvd.	gal.	.68	—
tanks, dlvd.	gal.	.42	—
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd	gal.	.60	—
dms., l.c.l., dlvd.	gal.	.70	—
tanks, dlvd.	gal.	.44	—
anhyd., c.l., dlvd.	gal.	.62	—
dms., l.c.l., dlvd.	gal.	.72	—
tanks, dlvd.	gal.	.46	—
Isopropyl benzene (see Cumene).			
Isopropyl ether, dms., c.l., dlvd	lb.	.09½	—
dms., l.c.l., dlvd.	lb.	.11	—
tanks, dlvd.	lb.	.07	—
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works	lb.	1.00	—
dms., l.c.l., works	lb.	1.05	1.25
tanks, works	lb.	.99	—
Isopropylamine (see Mono, Di, or Tri-).			
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works	lb.	.75	—
450-lb. fib. dms., l.c.l., works	lb.	.80	.90
Isoquinoline, dms., works	lb.	.65	1.25
Itaconic acid, refd., bgs., c.l., f.o.b. works	lb.	.53½	—
bgs., l.c.l., same basis	lb.	.54½	—
Tech., bgs., c.l., same basis	lb.	.38½	—
bgs., l.c.l., same basis	lb.	.39½	—

J

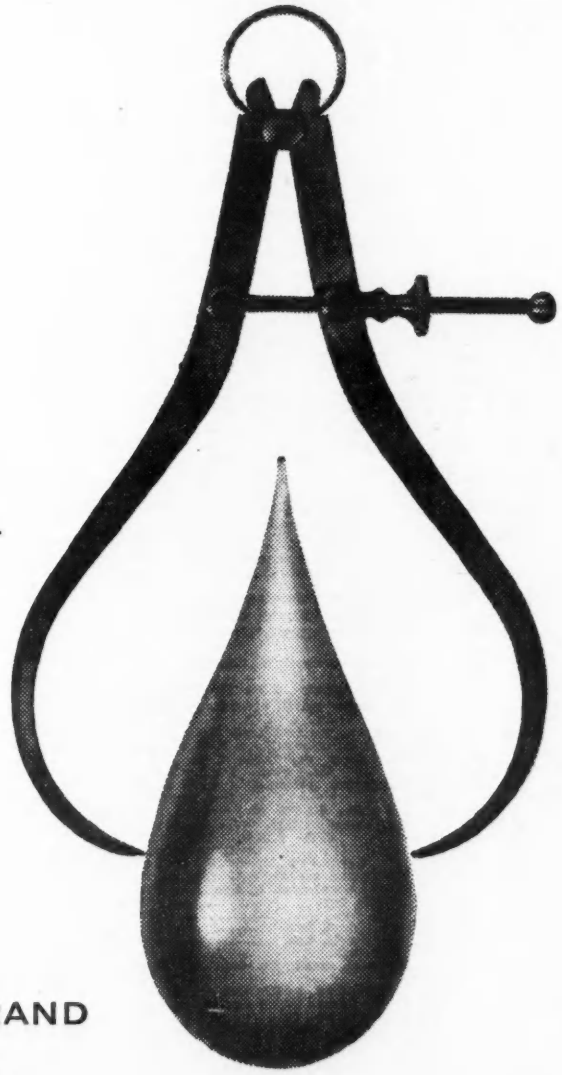
J acid, paste, bbls., works, 100% basis	lb	2.70	—
Powd., bbls., same basis	lb.	2.75	—
Jalap root, NF, bls.	lb.	.60	—
NF, powd., bbls., bxs.	lb.	.70	.75
Japan wax, cs.	lb.	.29	.31
Juniper berries, bgs.	lb.	.16	.17
Juniper berry oil, NF, bots.	lb.	2.90	3.75
Twice rectified, bots.	lb.	3.25	—
Juniper tar oil, NF, dms.	lb.	.42	.60
Juniper wood oil, tech., cns.	lb.	.38	.55

K

Kaolin (see also Clay, China).			
Kaolin, NF, powd., fib. dms.	lb.	.10	.12
NF, colloidal, 50-lb. bgs.	lb.	.15½	.17½
Karaya gum, No. 1, NF, powd., bls	lb.	.48	.50
No. 2, powd., bbls.	lb.	.43	.45
No. 3, powd., bbls.	lb.	.37	.40
Koch acid, bbls., frt. alld., 100% basis	lb.	1.00	—
Kola nuts, bgs.	lb.	.13	.15

L

L acid, bbls., works	lb.	1.25	—
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York	gal.	.20	—
Group 3	gal.	.15125	—
Houston, Texas	gal.	.16	—
Lacquer diluent, petroleum, 200°F-240°F b.r., tankcars, New Jersey or New York	gal.	.20	—
Group 3	gal.	.14125	—
Houston, Texas	gal.	.16	—
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald	lb.	.1985	—
bbls., dms., 20 or more, frt. equald	lb.	.2035	—
bbls., dms., 5 to 19, frt. equald.	lb.	.2085	—
bbls., dms., 1 to 4, frt. equald.	lb.	.2135	—
Lactic acid, edible, 80%, bbls., c.l., dms., frt. equald	lb.	.3335	—
bbls., dms., 20 or more, frt. equald	lb.	.3385	—
Lactic acid, edible, 80%, bbls., dms., 5 to 19, frt. equald	lb.	.3435	—
bbls., dms., 1 to 4, frt. equald.	lb.	.3485	—
Plastic grade, 50%, c.l., bbls., works	lb.	.2740	—
bbls., 20 or more, works	lb.	.2790	—
bbls., 5 to 19, works	lb.	.2840	—
bbls., 1 to 4, works	lb.	.2890	—
80%, bbls., c.l., works	lb.	.4625	—
bbls., 5 to 19, works	lb.	.4725	—
bbls., 1 to 4, works	lb.	.4775	—
Tech., 44%, bbls., c.l., works, 100 lbs.		12.45	—
bbls., l.c.l., works	100 lbs.	12.85	—
USP, 85%, cbys.	lb.	.85	—
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald	lb.	.14	—
bgs., 6,000-lb. lots, frt. equald	lb.	.14½	—
bgs., 2,000-lb. lots, frt. equald	lb.	.14¾	—
bgs., 200-lb. lots, frt. equald	lb.	.15¼	—
Edible lactose in fib. dms., ½c. higher.			
Lactose, ferment. grade, bgs., c.l., works	lb.	.08½	—
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald	lb.	.21½	—
fib. dms., 2,000-lb. lots, frt. equald	lb.	.22¼	—
200-1,880-lb. lots, frt. equald	lb.	.22¾	—
USP lactose in bags ½c. to 1c. lower.			
Lactose, USP, spray dried, bgs., t.l., frt. equald	lb.	.18½	—
bgs., l.t.l., frt. equald	lb.	.19	.19¼
Lady's slipper root, bls.	lb.	3.00	3.50
Lamp black, bgs., c.l., works	lb.	.16	.45
Lanolin, USP, anhyd., 400-lb. dms., works	lb.	.24	.26
USP, anhyd., cosmetic, 400-lb. dms., works	lb.	.28	.30
USP, hydrous, 400-lb. dms., works.	lb.	.20	—
Lard, cash, dms., Chicago	lb.	.1010	—
Lard oil (see Grease oil).			
Larkspur seed, bgs.	lb.	.53	—
Laurel leaf oil, dms., cns.	lb.	9.75	12.50
Laurent's acid, bbls	lb.	.70	—
Lauric acid, pure, dms.	lb.	.33¾	.36¼
tanks	lb.	.31¼	—
Lauryl alcohol, bots	lb.	2.00	2.50
n-Lauryl methacrylate, dms., c.l., t.l., works	lb.	.65½	—
dms., l.t.l., works	lb.	.66	—
Lavandin oil, 22-24%, dms.	lb.	1.10	1.50
Abrial, dms.	lb.	1.00	1.50
Lavender flowers, medium, bls	lb.	.55	.60
Ord., bls.	lb.	.20	.25
Select., bls.	lb.	.90	1.00
Lavender flower oil, USP, French, 35-37% ester, cns	lb.	1.85	4.00
40-42% ester, cns.	lb.	5.00	7.75
Spike, Spanish, cns.	lb.	2.20	3.00
Lead acetate, NF, cryst., gran., powd., bbls	lb.	.34½	—
White, cryst., bbls.	lb.	.25½	—
gran., bbls.	lb.	.26½	—
powd., bbls.	lb.	.26½	—
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more	lb.	.30½	—
1-lb bgs., same basis	lb.	.47	—
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld	lb.	.17	—
bbls., l.c.l., same basis	lb.	.18	—
Lead carbonate (see Lead, white, basic carbonate).			
Lead chloride, dms.	lb.	.52	—
Lead iodide, NF, V jars	lb.	3.82	—
Lead linoleate fused, 26% Pb, dms.	lb.	.38	—
Lead metal prime, pigs, New York.	lb.	.12	—
St. Louis	lb.	.1180	—
Lead monosilicate, bgs., c.l., works, frt. equald	lb.	.1385	—
bgs., l.c.l., same basis	lb.	.1485	—
Lead naphthenate, liq., 15% Pb., dms., dlvd	lb.	.19½	—
24% Pb., dms., dlvd.	lb.	.24¼	—
Solid, 37% Pb., dms., dlvd.	lb.	.31¾	—
Lead nitrate, bbls.	lb.	.24¼	.26¾
Lead orthosilicate gel., 50-60% PbO, dms., works	lb.	.29¾	.34¼
Lead peroxide, tech. powd., bbls	lb.	.45	.50
Lead phthalate, dibasic, dms., works.	lb.	.41	—
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald.	lb.	.1475	—
bbls., l.c.l., same basis	lb.	.1575	—
Lead, red, 97% Pb_3O_4, bbls., c.l., same basis	lb.	.1495	—
bbls., l.c.l., same basis	lb.	.1595	—
98% Pb_3O_4, bbls., c.l., same basis	lb.	.1510	—
bbls., l.c.l., same basis	lb.	.1610	—
Lead, resinate, precip. 23% Pb, dms., ton lots, dlvd	lb.	.43¾	—
Lead salicylate, normal dms., works	lb.	.46	—
Lead silicate (see Lead white basic silicate).			
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld	lb.	.20	—
bgs., l.c.l., same basis	lb.	.21	—
Lead sulfate (see Lead blue basic sulfate).			
Lead tallate, liq., 16% Pb, dms	lb.	.17¼	—
24% Pb, dms	lb.	.21¼	—
Solid, 30% Pb, dms.	lb.	.26¾	—
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld	lb.	.18	—
bgs., l.c.l., same basis	lb.	.19	—
basic silicate, bgs., c.l., shipt. pt., frt. alld	lb.	.16½	—
bgs., l.c.l., same basis	lb.	.17½	—
basic silicate, bgs., c.l., shipt. pt., frt. alld	lb.	.17	—
bgs., l.c.l., same basis	lb.	.18	—
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works.	lb.	.14	.15
non-ret. dms., l.c.l., same basis	lb.	.15	.16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis	lb.	.13	.14
non-ret. dms., l.c.l., same basis	lb.	.14	.15
Lemon bioflavonoid complex, 100-lb. package, works	lb.	6.45	—
Lemon oil, USP, Calif., cns., dms.	lb.	1.25	1.50
Messina, cns.	lb.	3.25	4.00
Lemongrass oil, cns., dms.	lb.	1.95	2.20
dl-Leucine, dms., works	lb.	12.25	15.00
Licorice root, gran., bls.	lb.	.13	—
Powd., bls.	lb.	.15	.16
Whole, bls.	lb.	.09	.10
Lignaloe wood oil, Mexican, cns.	lb.	2.75	3.50



IN
EXCHANGE BRAND
LEMON OIL

THE DIFFERENCE IS THE SAMENESS

Batch after batch...year after year...the same full, tangy taste and aroma of real California lemon!

You get uniformity—for sure—with Exchange Brand Lemon Oil, U.S.P., California Cold Pressed.

The Exchange Brand label represents over 40 years of experience in the citrus business...and the world's largest supplies of lemons. From these stocks, lemons are picked and chosen...and skillfully pressed and bulk blended for matchless uniformity.

Every container—from 7-pound tin to 385-pound drum—is packed and sealed in a spotless, modern plant. Every drop is guaranteed to be pure, U.S.P. quality oil—unadulterated, unsophisticated. Always look for the word "Exchange" on the tamper-proof container seal.

Exchange

LEMON OIL, U.S.P.
California Cold Pressed

Sunkist Growers
PRODUCTS SALES DEPARTMENT • ONTARIO, CALIFORNIA

Distributed in the U.S. by:
Dodge & Olcott, Inc., 180 Varick St., New York 14, N.Y.
Fritzsche Brothers, Inc., 76 Ninth Ave., New York 11, N.Y.
Ungerer & Co., 161 Avenue of the Americas, New York 13, N.Y.

Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).
Lilac oil ..... lb. 1.500.00
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E. ton 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton 17.25 - —
spray, bgs., c.l., same basis ton 18.25 - —
For New York delivery, add $6.29 freight charge
Lime oil, dist., Mexican, cns ... lb. 5.50 - —
West Indian, cns ..... lb. 5.50 - —
Expressed, West Indian, cns ... lb. 7.75 - 8.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.45 - 4.25
Syn., 98-100%, dms., works ... lb. 2.40 - 2.75
Linalyl acetate, ex bois de rose, 90-92%, dms lb. 2.65 - 4.50
96-98% dms lb 3.25 - —
Syn., 98-100%, dms., works ... lb. 2.75 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb dms., 5,000 lbs., dlvd. lb 2.13 - —
100-lb dms., 5,000-lbs., dlvd. lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., dlvd lb. 2.18 - —
100-lb dms., less than 5,000-lbs., dlvd lb. 2.20 - —
Linden flowers, with leaves, bls lb. .35 - .40
Without leaves, bls. lb. .42 - .45
Linseed meal, expeller, 32% bulk, Minneapolis, Mills ton. 57.50 - —
Extracted, 34% bulk, same basis ton. 51.50 - —
Linseed oil, raw, dms., c.l., New York lb. .1630- —
dms., l.c.l., New York ... lb. .1720- .1770
tanks, f.o.b. Minneapolis ... lb. .1270- —
tanks, New York ... lb. .1381- —
tankwagon, New York ... lb. .1431- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil, acid, dist., dms ... lb. .1980- —
Water-white, dms. ... lb. .2280- —
Litharge, comi., powd., bbls., c.l., works, frt. equald lb. .1425- —
bbls., l.c.l., same basis ... lb. .1525- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 -39.00
Lithium benzoate, dms. ... lb. 1.65 - 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald lb. 2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd lb. 1.29½- —
dms., ton lots to t.l., dlvd lb. 1.30 - 1.30½
Tech., dms., c.l., frt. alld ... lb. .67 - —
dms., t.l., same basis ... lb. .73 - —
dms., ton lots, same basis ... lb. .76 - —
dms., smaller lots, f.o.b., plant. lb. .81 - —
Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23½- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld lb. .87 - —
dms., l.c.l., same basis ... lb. .88 - .92
Lithium citrate, NF, dms., ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 2.15 - —
bbls., ton lots and more, dlvd lb. 2.18½- —
bbls., less ton lots, dlvd. ... lb. 2.23½- —
Lithium hydride, powd., dms., 500-lbs. lots or more, works, lb. 9.50 - —
Lithium hydroxide, monohydrate, dms. c.l., t.l., frt. alld lb. .72 - —
dms., l.c.l., frt. alld. lb. .73 - —
Lithium manganite, dms., works lb. .95 - 1.05
Lithium nitrate, tech., dms., 100-lb lots lb. 1.15 - 1.25
Lithium salicylate, dms. ... lb 1.60 - 1.70
Lithium silicate, dms., works lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works. lb. .47½- —
dms., ton lots, works ... lb. .48½- —
dms., less-ton lots, works ... lb. .53½- —
Lithium sulfate, dms., 100-lb. lots. lb. 1.15 - 1.25
Lithium titanate, dms., works lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. .98 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.50 - —
Resinated, bbls., works ... lb. 1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E. lb. .08¾- —
bgs., l.c.l., dlvd. E ... lb. .09⅛- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 - —
bgs., l.c.l., dlvd. ... lb. .12 - —
Lobelia herb, bls. ... lb. .55 - —
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —
Locust bean gum, powd., bgs. ... lb. .35 - .40
Lycopodium, cs. ... lb. 3.25 - 3.50
l-Lysine monohydrochloride, 25-lb. dms lb. 4.95 - —

M

Mace, Siauw, No. 1, b's. ... lb. 1.70 - —
No. 2, whole, bls. ... lb. 1.40 - —
siftings, bls. ... lb. 1.35 - —
Mace oil, dist., cns., dms ... lb. 9.00 -11.00
Magnesia, calcined, tech., bgs., ctns., frt equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev ton. 39.50 - —
91%, bgs., c.l., same basis. ton. 49.50 - —
95%, bgs., c.l. same basis. ton 59.00 - —
USP, light, bgs. ... lb. .36½- .37½
USP, heavy, bgs. ... lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton. 86.25 - —
Chemical grade, deadburnt, standard grain, bulk, c.l., Chawelah, Wash. ton. 46.00 - —
Magnesium bromide, cs., jars lb. .95 - 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald ... lb. .11½- —
bgs., l.c.l., frt. equald ... lb. .13½- .14
Magnesium carbonate, USP, bgs., c.l., frt. equald lb. .13½- —
bgs., t.l., frt. equald ... lb. .14 - —
bgs., l.c.l., frt. equald ... lb. .15 - 16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.

Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works lb. .12¾- —
dms., l.c.l., works ... lb. .14 - .15
Magnesium chloride, hydrous, 99%, flake, bgs., c.l., works. ton. 55.00 - —
bgs., l.c.l., works ... ton. 65.00 -80.00
Magnesium gluconate, 100-lb. dm., f.o.b. works, E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld ... lb. .22½- —
dms., l.t.l., frt alld. ... lb. .23½- —
tanks, frt. alld. ... lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works lb .36 - —
pigs, 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, frt. alld on carlots lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works ... 100 lbs. 2.15 - —
bgs, l.c.l., works ... 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs., l.c.l., 5,000 lbs., 1 withdrawal ... 100 lbs. 3.10 - —
bgs., smaller lots ... 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb. lots ... lb. .40 - —
fib. dms., 100-lb. lots ... lb. .45 - —
Bulky and super grades of magnesium trisicilate 7c. per lb. higher.
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works ... lb. .89 - —
dms., l.c.l., works ... lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald lb. .24 - —
dms., l.c.l., frt. equald ... lb. .25½- —
tanks, frt. equald ... lb. .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms ... lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots ... lb. 2.40 - 2.50
Mandrake root, bls ... lb. .40 - —
Manganese acetate, dms., dlvd ... lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¾- —
smaller lots, works ... lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton. 148.00 - —
40,000 to 99,999-lb. lots, paper bgs., same basis ton. 144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton. 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms ... lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .37½- —
Solid, precip., 8.2% Mn, bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd. E. ... lb. .34 - —
dms., ton lots, dlvd. E. ... lb. .36 - —
dms., smaller lots, dlvd. E. lb. .38 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms lb. .29¼- —
Precip., 6½-7% Mn. dms ... lb. .37 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S. E ton. 86.50 - —
bgs., l.c.l., dlvd. S. E ton. 93.50 - —
Manganese taliate, 6%, dms ... lb. .26½- —
Manila copal gum, C, bgs. ... lb. .35 - .39
DBB, bgs. ... lb. .25 - .28
DK, bgs. ... lb. No stocks.
DK, dust, bgs. ... lb. .14 Nom.
MA, soft, bgs. ... lb. .20 - .24
WS, bgs. ... lb. No stocks.
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms. ... lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide)
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works ... lb. .26½- —
bgs., l.c.l., works ... lb. .28 - —
Menadione, USP, bots. ... gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf lb. .06 - —
Menthol, nat., USP, Brazilian, large crystals, cs lb. 9.00 - —
Nat., USP, Brazilian, regular crystals, cs ... lb. 8.75 - —
Japanese, cs. ... lb. 12.00 - —
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs., fib. dms. less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib. dms., less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b. works lb. 4.03 - —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works lb. 3.78 - —
Mercuric cyanide, NF VIII, powd., fib. dms lb. 5.24 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works ... lb. 6.97 - —
Mercuric oxide, red, NF IX, 50-lb. dm., 100 lbs., f.o.b. works. lb. 4.72 - —
tech., 50-lb. dm., 100 jbs., same basis lb. 4.52 - —
Mercuric oxide, yellow, NF, 50-lb. dm., 100 lbs., same basis. lb. 4.89 - —
tech., dms., 100 lbs ... lb. 4.35 - —
25-lb. fib. dm. ... lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm., f.o.b. works lb. 8.22 - —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask, net-flask. 209.00 -212.00
Mesityl oxide, dms., c.l., dlvd ... lb. .15 - —
dms., l.c.l., dlvd. ... lb. .16½- —
tanks, dlvd. ... lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works ... lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads, frt. equald lb. .42½- —
dms., smaller lots, frt. equald. lb. .43 - .75
tanks, works, frt. equald lb. .40 - —
Methanol, nat, denaturing grade, tanks, frt. alld gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min., dlvd gal. .51½- —
dms., l.c.l., dlvd. ... gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .35 - —
tankwagon, 4,000 gal. min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal ... gal. .29 - —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. gal. .55½- —
dms., l.c.l., works ... gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area ... gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal. .34 - —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah, Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld. ... lb. 1.10 - —
dms., l.t.l., same basis ... lb. 1.16 - —
dl-Methionine, fib. dms., frt. alld., 50-lb. or more lb. 3.50 - —
Feed grade, 98%, fib. dms., same basis lb. 1.55 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs lb. .66 - —
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 ... lb. .21½- —
non-ret. dms., l.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis. lb. .24 - .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat., dms., l.c.l., E. of Miss., frt. alld. gal. .62½- —
Methyl acetone, syn., dms., c.l., frt. alld. E gal. .66 - —
dms., l.c.l., frt. alld. E. ... gal. .76 - —
tanks, frt. alld. E. ... gal. .51 - —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 - —
dms., l.t.l., dlvd. ... lb. .40 - —
tanks, dlvd. ... lb. .37 - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., dlvd. E. ... lb. .18½- —
tanks, dlvd. E. ... lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. ... lb. .18½- —
tanks, dlvd. ... lb. .14½- —
Methyl amyl ketone, dms., works. lb. 1.05 - —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. ... lb. 2.25 - 2.45
Methyl benzoate, cns., dms. ... lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld. lb. .62 - .65
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis ... lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld. lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis ... lb. .76 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. .79 - .82
Methyl chloride, indust., cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Refrigerator mfrs., cyls., dlvd lb. .48¾- —
Other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns ... lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd ... lb. .16½- —
tanks, dlvd. ... lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., l.c.l., works ... lb. .45¾- —
tanks, works ... lb. .43 - —
Methyl formate, refd., dms ... lb. .35 - .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
tanks, works ... lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works. lb. .21½- —
100-lb. multiwall paper bgs., l.t.l., works lb. .23 - —
Methyl heptin carbonate, bots ... lb. 27.75 -31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85
Methyl isoamyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., dlvd. ... lb. .20½- —
tanks, dlvd. ... lb. .17½- —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl Ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd ... lb. .18½- —
tanks, dlvd ... lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va. lb. .31 - —
dms., smaller lots, same basis. lb. .31½- —
tanks, same basis ... lb. .29 - —
Methyl naphthyl ketone, cryst., cns. lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E. lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms. lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼- —
dms., l.c.l., same basis ... lb. .62½- .67¼
Methyl testosterone, USP, 100-gram bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works lb. 1.30 - —
5-39 dm. lots, same basis ... lb. 1.35 - —
tanks, same basis ... lb. 1.25 - —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.80 - —
Tungstated, PTMA, bbls., same basis lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted ... lb. 3.25 - —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., l.t.l., dlvd ... lb. .15¾- —
tanks, 4,000-gal. min., dlvd lb. .12¼- —
tanktrucks, 1,000-gal. min., dlvd. lb. .13¼- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld.E lb. .06½- —
bgs., l.c.l., ex-whse. ... lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .08¼- —
bgs., l.c.l., ex-whse or freight alld. E lb. .09 - —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E lb. .08 - —
bgs., l.c.l., ex-whse, or frt. alld. E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld.E lb. .08¾- —
bgs., ex-whse. or frt. alld. E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E ... lb. .08¼- —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Mineral black, bgs., works ... lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .65 - —
50-65 vis., non-ret. dms., l.c.l., basis gal. .70 - —
tankscars, refy. ... gal. .49 - —
Mineral oil, white, tech., 65-75 vis., non-ret. dms., c.l., same basis gal. .65 - —
non-ret. dms., l.c.l., same basis gal. .70 - —
tankcars, refy. ... gal. .49 - —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .66 - —
non-ret. dms., l.c.l., same basis gal. .71 - —
tankcars, refy. ... gal. .50 - —
NF, 135-138 vis., non-ret. dms., c.l., same basis gal. .72 - —
Mineral oil, white, NF, 135-138 vis., non-ret. dms., l.c.l., same basis gal. .77 - —
tankcars, rfy. ... gal. .56 - —
NF, 145-155 vis., non-ret. dms., c.l., same basis gal. .78 - —
non-ret. dms., l.c.l., same basis gal. .83 - —
tankcars, refy. ... gal. .62 - —
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .80½- —
non-ret. dms., l.c.l., same basis gal. .85½- —
tankcars, refy. ... gal. .64½- —
USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy gal. .82½- —
non-ret. dms., l.c.l. ... gal. .87½- —
tankcars, refy ... gal. .66½- —
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy gal. .87½- —
non-ret. dms., l.c.l. ... gal. .92½- —
tankcars, refy. ... gal. .71½- —
(For f.o.b N. Y. add 2c. for tankcars; 2c. for c.l., and 3c. for l.c.l. non-ret. dms.).
Mineral orange, American, bbls., c.l., works lb. .17 - —
bbls., c.l., same basis ... lb. .18 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York ... gal. .305 - —
Houston, Texas ... gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 ... gal. .12875- —
Houston, Texas ... gal. .145 - —
140 F. flash, New York, New Jersey at terminal gal. .205 - —
Houston, Texas ... gal. .17 - —
Mink oil, dms. ... lb. 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .10 - .10¼
tanks, New York ... gal. .13½- —
Molybdated orange, bbls. ... lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works ... kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 85%, dms., works. lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd lb. .965 - —
dms., c.l., dlvd. ... lb. .995 - —
tanks, dlvd. ... lb. .96 - —

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HEYDEN CHEMICAL DIVISION

Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10½- —
dms., l.c.l., same basis lb. .11½- —
tanks, same basis lb. .08¾- —
Monoethanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoethylalphanaphthylamine (see
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E, 100% basis lb. .38½- —
dms., l.c.l., dlvd. E., 100% basis. lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —

Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33¼- —
dms., l.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis lb. .36 - —
Monomethylamine, 30-35% soln., dms., l.c.l., frt. equald, 100% basis lb. .36¼- —
tanks, frt. equald., 100% basis. lb. .26 - —
40% soln., dms., frt. equald., 100% basis lb. .33 - —
dms., l.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald, 100% basis. lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd. E lb. .31 - —
bgs., l.c.l., dlvd. E lb. .32 - —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld lb. 3.05 - —
dms., 100-lb. lots, same basis lb. 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic).
Montan wax, Calif., refd., bgs lb. .27 - .28
Imp., crude, Bohemian, bgs lb. .21 - .22
German, bgs. lb. .25 - .26
Morphine, cns., 100-oz., f.o.b. works. oz. 12.35 - —

Morphine hydrobromide, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E lb. .55¼- —
dms., l.c.l., dlvd. E lb. .56¼- —
tanks, dlvd. E lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb. 4.40 - 4.90
cns., 25-lb. lots lb. 4.50 - 5.00
Ketone, fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb. lots lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots lb. 1.26 - —
cns., 25-lb. lots lb. 1.40 - —
Mustard seed, Danish, yellow, bgs. lb. .14 - —
Montana, yellow, bgs lb. .10½- —
Oriental, bgs lb. .08 - —
Mustard, oil, syn., bots lb. 1.60 - 1.85
Myristic acid, bgs lb. .26¾- .29¼
tanks lb. .25¾- —
Myrrh gum, cs lb. .65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tank-cars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, frt. equald lb. .06 - —
imp., 78°, bgs., large lots lb. .09½ Nom.
Refd., indust., chipped, crushed, bgs., frt. equald lb. .13½- —
tanks, same basis lb. .10¾- —

Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. lb. .15½- —
cs., 50 lbs., c.l., same basis. lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, dms., frt. alld lb. 1.02 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .34 - —
bbls., l.c.l., works lb. .36 - —
Naphthol, ITR, red toner, bbls., works lb. 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid).
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, dms., frt. alld lb. .52 - —
b-Naphthylamine, tech., flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib. dms. lb. 8.50 - —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 - 8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity gram. .25 - —
fib. dms., 100-999-gram lots, basis activity gram. .30 - —
Tech., fib. dms. gram. .13½- —
Neopentylglycol, dms., c.l., dlvd lb. .32 - —
dms., l.c.l., same basis lb. .33 - —
Nerol, dms. lb. 4.75 - —
Neroli oil, NF, French, bots lb. 425.00 - 575.00
Tunisian, bots. lb. 400.00 - —
Nerolin, cns. lb. 2.45 - 2.85
Neville and Winther's acid, dms., frt. alld lb. 1.40 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd. lb. .68½- .75½
Nickel carbonate, bbls., dlvd lb. 78¼- .85¼
Nickel chloride, bbls., dlvd. lb. .37 - .45
Nickel formate, bbls., ton lots, frt. alld lb. .72 - .73
Nickel metal, electro cathodes, cs., works lb .74 - —
Nickel nitrate, dms., frt. alld lb. .31½- .33½
Nickel oxide, black, bbls. lb. .85 - —
Green, bbls. lb. .84 - —
Nickel sulfate, bgs., c.l., dlvd lb. .28 - —
bgs., l.c.l., dlvd. lb. .28½- .36
Nicotinamide, USP, 50-kilo., dms., 100 kilos., dlvd kilo. 6.50 - —
dms., less than 100 kilos, dlvd. kilo. 6.60 - 7.00
Nicotine sulfate, 40%, dealers, 50-lb. cms. frt alld lb. 1.20 - —
40%, manufacturers, 500-lb. dms., frt. alld lb. 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. lb. .10¼- —
Nikethamide, cbys. lb. 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 - —
cbys., l.c.l., works E 100 lbs. 6.05 - 6.85
38° Be., cbys., c.l., works E. 100 lbs. 6.25 - —
cbys., l.c.l., works E 100 lbs. 6.55 - 7.35
40° Be., cbys., c.l., works E. 100 lbs. 6.75 - —
cbys., l.c.l., works E 100 lbs. 7.05 - 7.85
42° Be., cbys., c.l., works E. 100 lbs. 7.25 - —
cbys., l.c.l., works E 100 lbs. 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
CP, NF, consumer, cbys., extra, c.l., works lb. .18½- —
cbys., extra, l.c.l., works lb. .20 - —
5-pint bots., extra, cs., c.l., same basis lb. .22½- —
5-pint bots., extra, cs., l.c.l., same basis lb. .24 - .25
dms., frt. alld lb. .99 - —
m-Nitroaniline, cryst., dms., frt. alld lb. 1.15 - —
Paste, dms., frt. alld., 100% basis. lb. 1.10 - —
o-Nitroaniline, flaked, dms., t.l., frt. alld lb. .49 - —
dms., l.t.l., frt. alld. lb. .51 - —
o-Nitroaniline orange toner, kgs. lb. 1.35 - —
p-Nitroaniline, c.l., t.l., dms., frt. alld lb. .445 - —
dms., l.c.l., same basis lb. .46½- —
o-Nitroanisole, tech., tanks, frt. alld. lb. .36 - —
p-Nitroanisole, tech., solid, dms., frt. alld lb. .72 - —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld lb. .13 - —
dms., l.c.l., frt. alld. lb. .14 - —
tanks, frt. alld. lb. .11 - —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 - —
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works lb. .64 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .37½- —
bbls., l.c.l., same basis lb. .33½- .40¼
18-20, cps., bbls., c.l., same basis lb. .39½- —
bbls., l.c.l., same basis lb. .40½- .42¼
250-400, 600-1,000 seconds, bbls., l.c.l., same basis lb. .43 - .46
Nitrocellulose, spirit soluble, 30-35 cps., ¾, ½ seconds, bbls., c.l., same basis lb. .43 - —
bbls., l.c.l., same basis lb. .44 - .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. .42 - —
bbls., l.c.l., same basis lb. .43 - .45

Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms., c.l., frt. alld lb. .15 - —
dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Nitrochlorobenzene, dms. lb. .26 - .27
2-Nitro-p-cresol, tech., dms., dlvd lb. .88 - —
Nitroethane, dms., c.l., dlvd. E lb. .25 - —
dms., l.c.l., dlvd. E lb. .26½- —
tanks, dlvd E lb. .22½- —

Nitroethane prices West of Rockies are 1c. higher.

Nitrogen solutions, tanks, frt. equald, N unit. 1.26 - —
Nitrogen tetroxide, industl., tankcars, f.o.b. Hopewell, Va lb. .065 - —
Cyls., t.l., min 5 tons, same basis lb. .07½- —
Cyls., l.c.l., t.l.t., same basis lb. .15 - —

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Nitrogenous process tankage, bulk, works unit-ton. 4.50 - 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works, unit-ton. 2.95 - —
Nitromethane, dms., t.l., dlvd. E lb. .25 - —
dms., l.t.l., dlvd. E lb. .26½- —
Nitromethane prices West of Rockies are 1c higher.
a-Nitronaphthalene, bbls., frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms., c.l., frt. alld. lb. .45 - —
dms., l.c.l., frt. alld lb. .47 - —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .23½- —
dms., l.c.l., same basis lb. .25 - —
tanks, same basis lb. .21 - —
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .18½- —
dms., l.c.l., same basis lb. .20 - —
tanks, same basis lb. .16 - —
Nitropropane prices West of Rockies are 1c. per lb. higher.
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 - —
o-Nitrotoluene, dms., c.l., frt. alld lb .15 - —
dms., l.c.l., frt alld. lb. .16 - —
tanks, frt. alld. lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms., l.c.l., works lb. .28 - —
flake, dms., c.l., t.l., works lb. .27½- —
dms., l.c.l., works lb. .28 - —
m-Nitro-p-toluidine, dms. lb. 1.25 - —
Nonylphenol, dms., c.l, frt. alld. lb. .22 - —
dms., l.c.l., frt. alld lb. .23 - —
tanks, frt. alld. lb. .19½- —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutmegs, East Indian, whole, bgs. lb. 1.34 - 1.35
West Indian, bgs. lb. 1.28 - 1.29
Nutmeg oil, USP, dist., East Indian, cns. lb. 9.00 -12.00
West Indian, cns. lb. 9.00 -12.00
Nux vomica, bls. lb. .20 - —
Powd., bbls., bxs. lb. .20 - .22

O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms. lb. .48 - .53
Octane, indust., tanks, Bayonne, N.J. gal. .20 - —
Borger, Tex. gal. .15¾- —
1-Octanol, tech., dms., c.l., dlvd., Zone 1 lb. .43½- —
dms., l.c.l., dlvd. Zone 1—lb. .45½- —
tanks, dlvd., Zone 1 lb. .41 - —
Octyl alcohol, perfumers grade, bots. lb. 1.60 - 3.25
Octyl alcohol, tech, (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½- —
dms., l.c.l., same basis lb. .55 - —
Octyl phenol, bgs., c.l., works lb. .22 - —
bgs., l.c.l., works lb. .22½- —
tanks, works lb. .21 - —
Octyl phenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms. lb. .16 - .16½
tanks lb. .14 - —
Oleic acid, dbl.-dist. (white), dms. lb. .17½- .20
tanks lb. .15 - —
S.d., dms. lb. .16¼- .18¾
tanks lb. .13¾- —
Oleo oil, extra, dms. lb. .14½- .14¾
Oleostearine, dms. lb. .12½- .12¾
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs. lb. .15 - .20
Tears, cs. lb. .22 - .30
Olibanum oil, bots. lb. 5.00 - 7.65
Extra fine, bots lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid gal. 2.30 - 2.35
Olivine, crude, works ton.12.00 - —
20 mesh, works ton.15.00 - —
100 mesh works ton.20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works oz.19.20 - —
gran., cns., 50 lbs., same basis. oz.21.65 - —
powd., cns., 50 lbs., same basis. oz.21.65 - —
Orange oil, expressed, USP, Calif., cns., dms. lb. .70 - .90
Calif., sweet., cns., dms. lb. .60 - —
Florida, cns., dms. lb. .45 - .50
Messina, cns. lb. 3.25 - 5.00
West Indian, bitter, cns., dms., lb. 2.50 - 3.50
Orange peel, bitter, Haitian, bls. lb. .18 - .20
Sweet lb. .28 - .30
Origanum oil, Spanish, cns. lb. 1.80 - 2.30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Orris root, Florentine, bls. lb. .55 - —
powd., bbls., bxs. lb. .65 - —
Verona, bls lb. .35 - —
powd., bbls., bxs lb. .45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots. gram. 3.00 - 4.00
Ouricury wax, crude, bgs. lb. .51 - .52
Refd., pure, bgs. lb. .58 - .60
Oxalic acid, bgs., c.l., works lb. .18 - —
bgs., 10,000-lb. lots, works lb. .19 - —
bgs., smaller lots, works lb. .20½- —
Oxalic acid in drums is priced ½c. per lb. higher.

b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld lb. .91? - —
Dyestuff manufacture, dms., same basis lb. 1.03 - 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works lb. 4.75 - 5.00
cns., smaller lots, works lb. 4.92 - 5.17

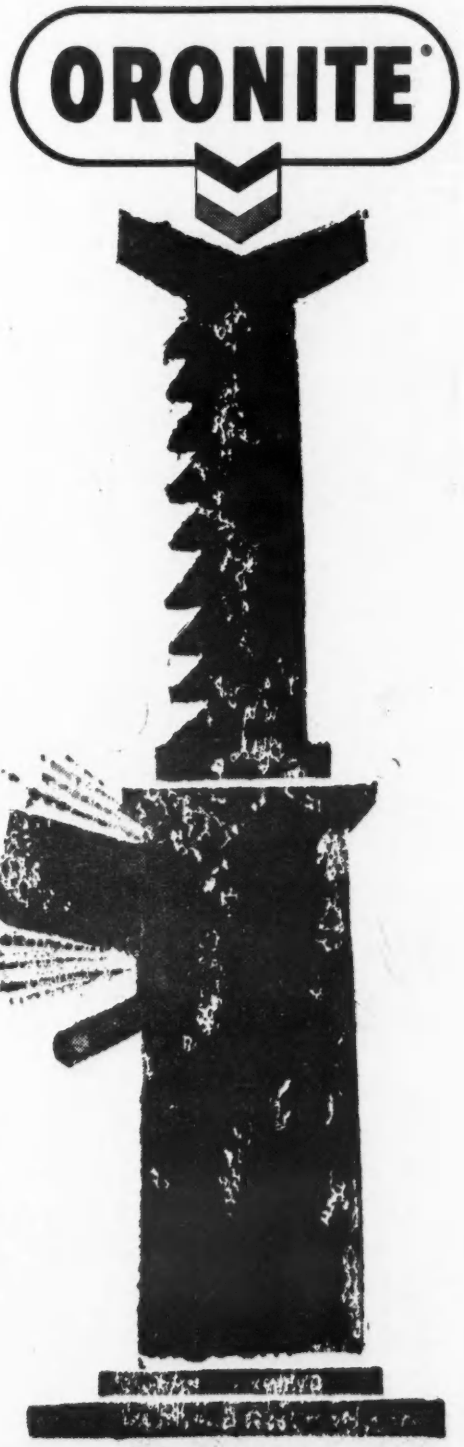
P

Palm oil, clarif., dms lb. .1440- .1540
tanks lb. .1150- —
Palm oil acid, dist., dms. lb. .15¾- .19¼
tanks lb. .13¾- .14¼
Palmarosa oil, cns. lb. 4.45 - 6.00
Papain, powd., bots. lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
cns., smaller lots oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns oz. 7.10 - 7.35
Paprika, Bulgarian, bgs. lb. .27 - —
Hungarian, bgs. lb. .29 - —
Spanish, bgs lb. .33 - —
Yugoslavian, bgs. lb. .29 - .30
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. lb. 1.21 - —
Chlorinated, kgs. lb. 1.36 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
132°-134°F., ASTM, tanks, refy. lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .14 - —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .10 - —
bgs., l.c.l., frt. alld lb. .12 - .13
91%, powd., bgs., c.l., ex whse. lb. .1715- —
bgs., l.c.l., ex whse lb. .1865- —
USP-X, fib. dms., c.l. lb. .19 - —
fib. dms., 1,000-lb. lots lb. .20 - —
fib. dms., smaller lots lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd lb. .14 - —
55-gal. dms., l.c.l., dlvd lb. .15 - —
tanks, dlvd. lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, ethyl, dms., frt. alld lb. .84 - —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Paris green, dealers, 100 lb. dms., frt. alld lb. .45 - —
Passion flower herb, bls. lb. .45 - .50
Patchouli oil, imp., cns. lb. 5.60 - 6.50
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd. E. of Rockies lb. 1.00 - —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, old process, 45%, bgs., f.o.b. mills ton.58.00 Nom.
solvent, same basis ton.55.00 Nom.
Peanut oil, crude, tanks, f.o.b. mills. lb. .15¾- —
Refd., dms. lb. .21 - .21¼
tanks lb. .19 - —

ORONITE®

Going up UP UP

as a chemical supplier to the PLASTICS and SURFACE COATINGS industries



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6729

Pectin—b,g-Picoline

Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
Dom., tech., powd., 150 jelly grade, bbls. lb. 1.28 - —
Imp., Danish, bbls., ex whse. lb. 1.28 - —
Pelargonic acid, dms., c.l., dlvd. lb. .25 - —
ton lots, same basis lb. .27½- —
tanks, same basis lb. .23½- —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .021 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .023 - —
Pennyroyal oil, USP, imported, cns. lb. 1.95 - 2.70
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., l.c.l., same basis lb. .22½- .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .31 - —
bgs., l.c.l., dlvd. lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs. lb. .52 - —
Lampong, bgs. lb. .52 - —
Red, Funtuas, bgs. lb. .32 - —
Japanese, Hontoka, bgs. lb. .37½- —
Santaka, bgs. lb. .31½- —
Sudanese, bgs. lb. .36 - —
White, Muntok, bgs. lb. .80 - —

Peppermint leaves, dom., USP, bls., dms. lb. .70 - .75
Imp., USP, bls. lb. .85 - —
Peppermint oil, nat., dms. lb. 4.25 - —
Redist., USP, dms. lb. 4.35 - —
Perchloroethylene, dms., c.l., or t.l., dlvd. lb. .13½- —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd. lb. .12¼- —
Peri acid, dry, bbls., frt. alld. lb. 1.60 - —
Paste, bbls., frt. alld. lb. 1.55 - —
Peru balsam, dms. lb. 1.10 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms. lb. 2.40 - —
Petrolatum, cream, dms., c.l., refy. lb. .08125- —
dms., l.c.l., dlvd. lb. .10125-.11375
tanks, refy. lb. .05875- —
Extra amber, dms., c.l., refy. lb. .07125- —
dms., l.c.l., dlvd. lb. 09125-.10375
tanks, refy. lb. .04875- —
Petrolatum, lily white, dms., c.l., refy. lb. .08625- —
dms., l.c.l., dlvd. lb. .10625- .12
tanks, refy. lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., l.c.l., dlvd lb. .11125- .125
tanks, refy. lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy lb. .07125- —
dms., l.c.l., dlvd. lb. .095 - .10375
tanks, refy. lb. .04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works, lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55%, sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms., same basis lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld. lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E. of Rockies lb. .16¾- —
non-ret. dms., l.c.l., same basis. lb. .17¾- —
tanks, same basis lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis lb. .16½- —
non-ret dms., l.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —

Phenol, 30°C., or above, tar dist., non-ret. dms., l.c.l., same basis. lb .19 - —
tanks, same basis lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld. lb. .18½- —
dms., same basis lo. .20½- —
tanks, same basis lb. .16½- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld. lb. 1.30 - —
250-lb. dm., same basis lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd. lb. .44 - —
fib. dms., l.t.l., same basis lb .47 - —
NF, fib. dms., t.l., same basis lb. .43 - —
fib. dms., l.t.l, same basis lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots. lb. 2.35 - —
100%, bots. lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., cns. lb. 1.25 - 1.75
dl-Phenylalanine, dms., works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E. lb. .41 - —
dms., l.c.l., dlvd. E. lb. .42½- —
tanks, dlvd. E. lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, coml. fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. .77 - —
Phenylethyl acetate, bots. lb. 1.25 - 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 - 1.50
Standard, dms. lb. 1.10 - 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld. lb. 1.50 - —
dms., smaller lots, frt. alld. lb. 1.70 - 1.85
Phenylethylphenyl acetate, bots. lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. lb. 1.80 - —
fib. dms., smaller lots, dlvd. E lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 - —
Philippine copal gum, pale, chips, bgs lb. .23¾- .26
nubs, bgs. lb. .33¼- .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 - .24
Phloroglucinol, coml., fib. dms., works lb. 6.40 - —
CP, bots., works lb. 17.75 - —
Tech., fib dms., works lb. 10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ret. cyls., works lb. .15½- —
Phosphate, defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 48.00 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. short-ton. 5.298 - —
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.648 - —
70-72%, b.p.l., bulk, c.l., same basis short-ton. 6.228 - —
74-75%, b.p.l., bulk, c.l., same basis short-ton. 7.128 - —
76-77%, b.p.l., c.l., bulk, same basis short ton. 8.018 - —

Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.59.

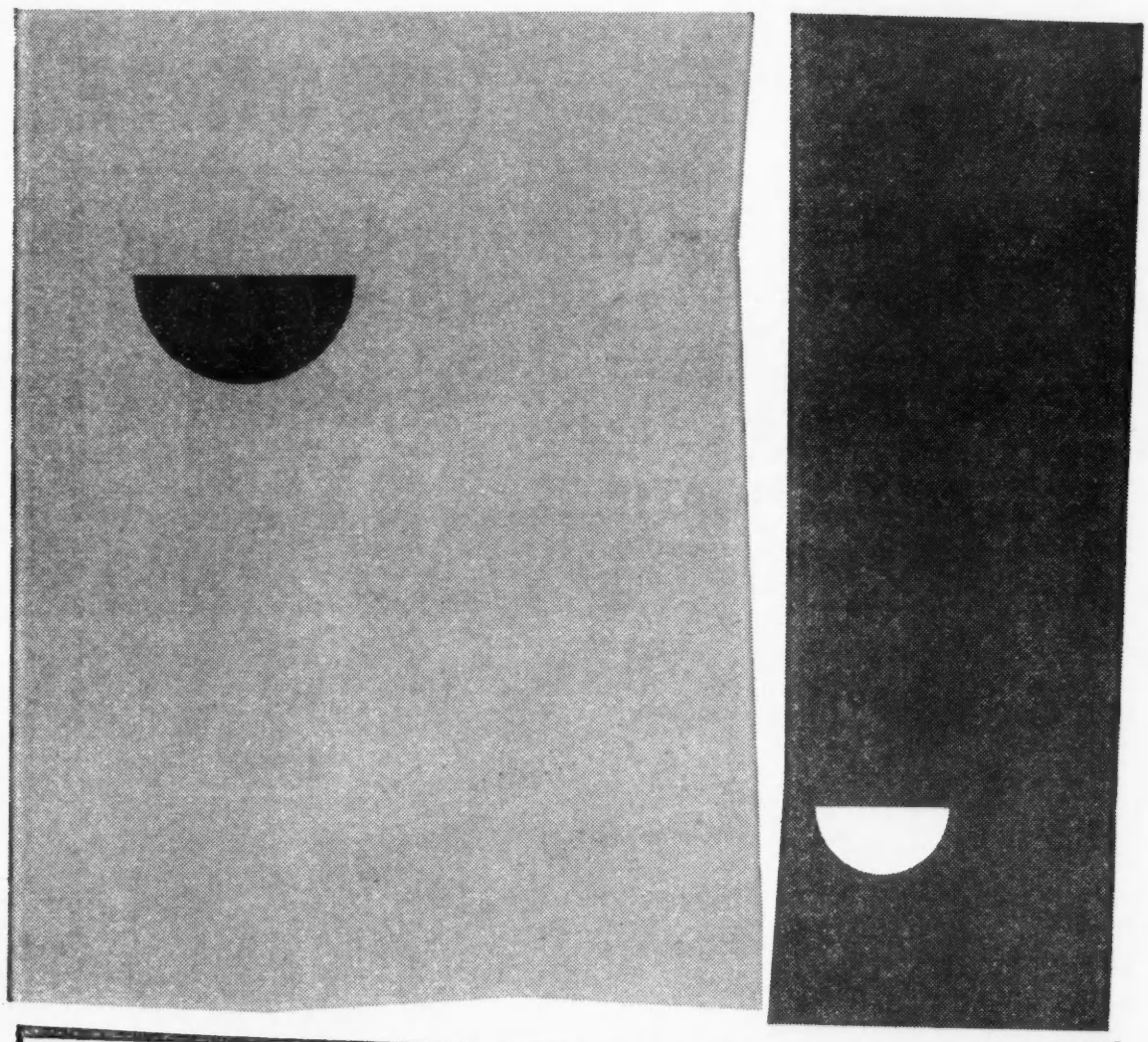
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 - —
cbys., l.c.l., same basis 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 - —
80%, cbys., c.l., frt. equald 100 lbs. 7.85 - —
cbys., l.c.l., works 100 lbs. 8.10 - 9.35
tanks, t.w., works 100 lbs. 6.00 - —
NF, 85%, cbys., c.l., works. 100 lbs. 8.50 - —
cbys., l.c.l., works 100 lbs. 8.75 - 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20¼
dms., l.c.l., works, frt. equald lb. .21½- —
tanks, works, frt. equald, lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works, frt. equald lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms., l.c.l., works lb. .14½- .15¼
Solid, dms., c.l., works lb. .11½- —
dms., l.c.l., works lb. .12½- .13¼
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms., l.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms., l.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .19 - .23
bgs., l.c.l., same basis lb. .20 - .24
tanks, same basis lb. .18½- .22¼
Phthalimide, 97-98%, dms., frt. alld lb. .65 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies. lb. 2.90 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.52 - —

Pythalocyanine blue prices 1c. higher W. of Rockies.

Phthalocyanine green toner, bbls., works lb. 3.35 - —
Resinated, bbls. lb. 3.00 - —
Water dispersable, bbls. lb. 1.71 - —

Phthalocyanine green prices 1c. higher W. of Rockies.

Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more lb. 5.00 - —
NF, fib. dms. lb. 5.20 - —
a-Picoline, dms., c.l., works, frt. equald lb. .42 - .46
dms., l.c.l., works, frt. equald lb. .422 - .46¼
tanks, same basis lb. .41½- .43
b-Picoline, 98%, dms., t.l., works. lb. 1.05 - —
dms., l.c.l., same basis lb. 1.15 - —
tanks, same basis lb. .95 - —
b,g-Picoline, 5°C, dms., c.l., works. lb. .32½- —
dms., l.c.l., works lb. .33 - —



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Prepared by U. S. Industrial Chemicals Co.

U.S.I. CHEMICAL NEWS

September ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1960

Coal Tar Naphthalene Is Purified Economically by Continuous Sodium Process

A semi-continuous, commercial process for desulfurizing coal tar naphthalene, through treatment with metallic sodium, has been developed by U.S.I. specialists in sodium chemistry. This development provides coke oven producers with an efficient and economical method for purifying naphthalene to the levels demanded by makers of phthalic anhydride, dyes, vinyl plastics, moth balls and other naphthalene products.

78° Naphthalene can be treated with 1.5% by weight of sodium for reduction of sulfur content from about 0.5% to less than 0.05%, at a cost of under one half a cent per pound. Naphthalene recovery would exceed 99%. Capital investment for a plant to treat 50-60 million lb./yr. of naphthalene would be about $50,000.

In such a semi-continuous plant naphthalene—with residual phenols removed through pretreatment with solid caustic for best sodium efficiency—is fed into a series of kettles and contacted with sodium for 30-60 minutes. The naphthalene is then flash distilled from the residue. The residue, upon decomposition with steam, yields crude napthalene, low in sulfur, which would be returned to the head of the process.

Bulk sodium is metered directly into the treating kettles. With adequate agitation, sodium will emulsify quickly and

MORE

New Trona Mining Method Planned in Intermountain's Soda Ash Plant Expansion

Intermountain Chemical Co., a 10% owned affiliate of U.S.I., has announced plans for a $4,000.000 expansion of their soda ash facilities, to be completed in 1962. Capacity is being increased from 520,000 to 720,000 tons per year.

The company mines trona ore in the Green River area of southwestern Wyoming and refines the ore into soda ash. A new method for mining trona, developed by Intermountain, will be tried for the first time as part of the expansion. It is a continuous system for mining, extraction and movement of trona which eliminates blasting and drilling underground. The method uses augers, adapted from hard-coal mining.

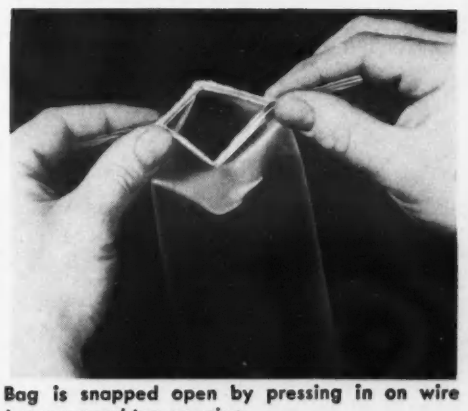
During expansion, Intermountain will also make changes in refinery technology.

New Polyethylene Bag with No-Leak Closure Shows Promise as Sterile Pack

A new, low-cost, sterile polyethylene bag with a wire tape closure is now being used by the dairy industry for milk sampling and reportedly finding application in a number of fields, including cosmetics. The containers are made of clear, heavy polyethylene tubing, sealed both top and bottom to keep the inside sterile.

A line of perforations is provided for removing the sealed top. Below the perforations are two wire tapes which help in opening and form the closure for the bag. For resealing, tapes are pulled taut, top of bag is rolled down, and projecting ends of tapes are bent over. A liquid-tight closure is formed. The three photos below show unsealing, opening and resealing.

New polyethylene bag is sterile-sealed until perforated top is zipped off.



Bag is snapped open by pressing in on wire tapes around top opening.

Liquid-tight resealing is done by rolling bag top down, and folding tape ends over.

Final Regulations on Tax-Free And SD Alcohols Now in Effect

A&TTD Issues New Simplified & Liberalized "User" Regulations

The Alcohol and Tobacco Tax Division of Internal Revenue published final revised regulations (effective July 1) on the distribution and use of Specially Denatured and Tax-Free Alcohols in the Federal Register of June 29. These regulations provide for administration of the Internal Revenue Code of 1954 as amended by the Excise Tax Technical Changes Act of 1958.

For the first time, the A&TTD has separated "user" regulations from others covering production of ethyl alcohol and specially denatured formulations. Here is a brief summary of some of the important provisions of the new "user" regulations. For details, see Industry Circulars 60-22 on SDA and 60-21 on Tax-Free.

(1) Industrial Use Permits—Forms 1481 (SDA) and 1447 (Tax-Free)—no longer have to be renewed annually. They remain in effect unless suspended, revoked, surrendered or otherwise terminated.

(2) Withdrawal Permits:
Form 1485 (SDA)—permits expire Oct. 31 each year. Renewal application must be filed annually by July 10. Effective Nov. 1, 1961, permits will allow monthly withdrawal of 1/6 of annual allowance (formerly 1/12).
Form 1450 (Tax-Free)—permits expire Apr 30 each year. Renewal application must be filed annually by Jan. 10. Effective May 1, 1961 (earlier with special permission), permits will allow monthly withdrawal of 1/6 of annual allowance (formerly 1/12).

(3) Losses—on SDA, the minimum quantity on which a claim for re-

MORE

CONTINUED *Alcohols*

mission of tax must be filed has been increased to 5 wine gallons. On Tax-Free, the minimum quantity has been increased to 5 proof gallons.

(4) **Reports:**
Form 1482 (SDA)—submitted annually instead of monthly for users who withdraw less than 660 gal./yr. Those who withdraw more must still report monthly, unless otherwise authorized.
Form 1451 (Tax-Free)—submitted annually instead of monthly.

(5) **Samples**—SDA samples of one quart may be obtained without permit.

(6) **Samples of Labels and Advertising** for articles not containing SDA, but made from SDA, no longer required by A&TTD except on request.

(7) **Carrier Permits**—no longer required.

(8) **Proprietary Solvents**—may be packaged by *distributors and users* as well as manufacturers, provided the packages are properly marked.

(9) **Return**—Consent of Surety for return will no longer be required of SDA permittees, but will be required in blanket form from person to whom returned.

Many other points are also covered in detail in Industry Circulars 60-22 and 60-21. It can be seen that the A&TTD has made the new regulations more liberal, and has simplified the paper work involved in the use of SDA and Tax-Free Alcohols.

CONTINUED *Naphthalene*

react. It is not necessary to use predispersed sodium, since crude naphthalene contains many naturally occurring trace impurities which are excellent dispersing aids for sodium.

For further information, send for the new U.S.I. technical data bulletin "Desulfurization of Naphthalene by Sodium". Address Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., N.Y. 16, N.Y.

New Polyethylene Resins Produce Squeeze Bottles Of Excellent Appearance

U.S.I. has developed three new PETROTHENE® polyethylene resins with properties particularly suited to the blow molding of bottles for drugs, cosmetics and chemical specialties. Two of the resins can also be used for injection molding. All have been successfully field tested. Each of the resins produces bottles of outstanding appearance, good stress crack resistance and excellent low temperature flexibility.

PETROTHENE 101 and PETROTHENE 102-2 can be used in both blow molding and injection molding. The first has high stiffness, which permits reduction in wall thickness and, consequently, lower cost per container. The second has high impermeability to liquids, oils and gases, and a high flow rate which is particularly useful in blow molding pieces 6 to 20 oz. or heavier. PETROTHENE 209-2 is designed for use only in blow molding, especially for relatively small moldings—under 10 oz. —with thick side walls.

Data sheets on these three new resins are available from U.S.I. Address Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.

First heat exchanger successfully fabricated from zirconium is part of unit to concentrate H_2O_2 solutions. Zirconium's corrosion resistance in this application made it profitable to overcome welding problems associated with the metal. (Photo courtesy The Pfaudler Co.)

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

High molecular weight synthetic polypeptides now commercially available include glutamic acid, γ-benzyl glutamate, lysine hydrobromide, ε-carbobenzoxylysine, o-carbobenzoxytyrosine, leucine, alanine, phenylalanine, tyrocine. **No. 1630**

New booklet on industrial hazards—casualty, fire, pollution and product liability—discusses measurement, detection, correction and litigation. Stresses prevention, and need for help of experts when mishaps occur. **No. 1631**

Borax and other boron compounds are described in new brochure which can now be obtained. Contents include historical data; production, uses, properties of commercial boron compounds; properties of 28 research chemicals. **No. 1632**

Kit for emergency radioactivity decontamination is now on market. Provides radioisotope users and laboratories with respirator, disposable clothing, decontamination solutions, instruction manual—all in steel case. **No. 1633**

Acetone specifications, properties, shipping methods and uses are listed in new data sheet now available. Material is widely used as solvent, and in making drugs, dyes, plastics and many other organics. **No. 1634**

New polyethylene drum faucet is said to empty 55-gallon drum of average material in about two minutes. Fits standard 2-inch drum outlet. Comes with polyethylene spout closure to eliminate residual dripping. **No. 1635**

Hair care is covered in new book now being sold. Said to be most complete ever written for layman on growth, care, diseases and treatment of hair disorders. **No. 1636**

Non-electric magnets have been installed under belts of conveyors on aerosol filling lines to hold cans in place during underwater travel to heating bath. Magnetic units said to be available in lengths to fit any conveyor belt. **No. 1637**

The rare earths plus thorium, scandium and yttrium—chemicals, metals, alloys—are detailed in new booklet. Gives uses, potentials, production, properties, chemical analyses for over 50 products. **No. 1638**

New, versatile, bench model superspeed centrifuge with built-in safety shield, accommodating 5 interchangeable rotors for batch or continuous flow separations, is on market. Rotors are fitted with removable polyethylene liners. **No. 1639**

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Ethyl Alcohol: Pure and all denatured formulas; Anhydrous and Regular Proprietary Denatured Alcohol Solvents SOLOX®, FILMEX®, ANSOL®M, ANSOL PR

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Pharmaceutical Products: DL-Methonine, N-Acetyl-DL-Methonine, Urethan USP, Intermediates.

Heavy Chemicals: Anhydrous Ammonia, Ammonium Nitrate, Nitric Acid, Nitrogen Fertilizer Solutions, Phosphatic Fertilizer Solution, Sulfuric Acid, Caustic Soda, Chlorine, Metallic Sodium, Sodium Peroxide.

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g-Picoline, dms., f.o.b., works..lb. 1.60 • —
tanks, t.l., same basis.....lb. 1.50 • —
Picric acid, NF, bbls. .....lb. .85 • —
Tech., bbls. .....lb. .44 • —
Pigment green B, kgs. .....lb. 1.50 • —
Pilocarpine hydrochloride, USP, bots..oz. 5.23 • —
Pilocarpine nitrate, USP, bots., vials. oz. 5.15 • —
Pimento, Jamaincan, bgs. .....lb. .68½- —
Mexican, bgs. .....lb. .56 • —
Pimento berry oil, NF, dms. ....lb. 3.75 • 9.25
Pimento leaf oil, crude, cns. ....lb. 2.20 • 2.60
Pine oil, dest.-dist., dms., l.c.l. works..lb. .15 • —
dms., l.c.l. ex whse. New York. lb. .173 • —
Steam-dist., dms., ex whse., New York..lb. .185 • —
dms., dlvd. .....lb. .188 • —
Pineneedle oil, Siberian (see Abies Siberoca oil).
Pink root, bls. .....lb. 1.75 • —
Piperazine, anhyd., dms., c.l., frt. alld..lb. 1.80 • —
dms., l.c.l., same basis.....lb. 1.85 • —
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld..lb. 1.15 • —
Piperazine dihydrochloride, 51%, dms., 1,000 lbs. or more, frt. alld..lb. .1.23 • —
Piperazine hexahydrate, 44%, dms., 1,000 lbs or more, frt. alld lb. .86 • —
dms., 200-900 lbs., frt. alld....lb. .89 • —
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld..lb. 1.06 • —
Piperidine, dist., 98% min., dms., c.l., t.l., frt. equald....lb. 2.53 • —
Piperonyl butoxide, dms., dlvd. E.lb. 4.50 • 5.05

PITCHES

Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum).
Platinum metal, works.....oz.81.00 -85.00
Pleurisy root, bls. .....lb. .45 • .50
Podophyllum resin, NF, dms. ....lb.12.50 • —
Poke root, bls. .....lb. .19 • .22
Polymyxin, bots., bulk., 50 billion units or more..1,000,000 units. .52 • —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 • —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 • —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works..lb. .42 • —
dms., 10,000-20,000-lb. lots, works. lb. .44 • —
dms., smaller lots, works.....lb. .47 • .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works..lb. .42 • —
dms., 10,000-20,000-lb. lots, works..lb. .44 • —
dms., smaller lots, works.....lb. .47 • .49
Pontianak copal gum, chips, bgs..lb. .25 • —
Nubs, bgs. .....lb. .37 • .40
Poppy seed, Argentine, bgs. ....lb. No stocks.
Dutch, bgs. .....lb. .18 • —
Danish, bgs. .....lb. .16½- —
Polish, bgs. .....lb. .17½- —
Turkish, bgs. .....lb. .13½- —
Potash, caustic, liq., 45% basis, dms., c.l., works..100 lbs. 4.25 • —
dms., l.c.l., same basis.100 lbs. 5.25 • —
tanks, same basis.....100 lbs. 3.70 • —
reg., flake, 88-92%, dms., c.l., same basis..100 lbs. 9.53 • —
reg., flake, 88-92%, dms., l.c.l., same basis..100 lbs.11.05 • —
solid, 88-92%, dms., c.l., works. 100 lbs. 9.10 • —
dms., l.c.l., works.....100 lbs.10.60 • —
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E..lb. .31 • —
Potassium bicarbonate, USP, gran. dms..lb. .22 • —
powd., dms. .....lb. .24 • —
Potassium bichromate, gran., bgs., c.l., t.l., works..lb. .18 • —
bgs., l.c.l., works .....lb. .18½- .19¾
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald..lb. .37 • —
100-lb. bgs., 5,000 lbs., 1 shipt., same basis..lb. .38 • —
100-lb. bgs., smaller lots, same basis..lb. .40 • —
Potassium borohydride, powd., dms., works..lb.16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots.
Potassium bromate, dms., 1,000-lb. lots or more, works..lb. .50 • —
dms., smaller lots, works.....lb. .52 • .62
Potassium bromide, USP, gran., bbls., kgs..lb. .39 • .40
Potassium carbonate, dom., NF, gran., bbls., dms..lb. .20 • —
Dom., tech., powd., bbls., dms..lb. .21 • .22
Dom., calcinated, bgs., c.l., works. 100 lbs. 6.50 • —
bgs., l.c.l., same basis..100 lbs. 9.55 • —
Dom., hydrated, 83-85%, bgs., c.l., works..100 lbs. 7.10 • —
bgs., l.c.l., works....100 lbs. 8.15 • —
Potassium chlorate, cryst., dms., c.l., works..lb. .12¼- —
dms., l.c.l., works .....lb. .13½- .14½
Powd., dms., c.l., works.....lb. .12¾- —
dms., l.c.l., works.....lb. .14 • .15
works..lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works..lb. .16¾- —
NF, gran., 25-lb. metal dms....lb. .36 • —
NF, powd., dms., 2,000 lbs. or more, works..lb. .17¼- —
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works..ton.29.00 • —
bgs., c.l., works.....ton.33.50 • —
99.3% KCL, bulk, c.l., works.ton.28.00 • —
bgs., c.l., works .....lb.32.50 • —
USP, cryst., dms. .....lb. .20 • .22
USP, gran., dms. .....lb. .21 • .23
USP, powd., dms. .....lb. .24 • .26
Potassium chloride agricultural (see Potassium muriate).
Potassium chromate, tech., dms., works..lb. .50 • .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E..lb. .43 • —
powd., 250-lb dms., same basis. lb. .46 • —
Potassium cyanide, dms., 20,000-lb. lots or more, works....lb. .42½- —
dms., 2,000-19,999-lb. lots, works. lb. .43 • —
dms., smaller lots, works.....lb. .44 • .44½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works..lb. .50 • —
dms., smaller lots, works .....lb. .65 • —
Potassium ferrocyanide, dms., ton lots..lb. .24½- —
dms., smaller lots .....lb. .29 • —

Potassium fluoborate, fib. dms., c.l., works..lb. .30 • —
fib. dms., l.c.l., works.....lb. .31 • —
Potassium fluoride, dms., works..lb. .37 • .38
Potassium gluconate, 100-lb. dm., f.o.b. works E..lb. 1.67 • —
Potassium guaiacol sulfonate, NF, dms..lb. 2.10 • 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 • —
Potassium iodide, USP, cryst., gran., or powd., 250-lb. dm., f.o.b. works lb. 1.40 • —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works. unit-ton. .17 • .1765
Potassium metabisulfite, gran., dms., lb. .16 • —
Powd., dms. .....lb. .27 • —
Potassium muriate, standard, bulk, c.l., works..unit-ton. .34 • .36
bagged 60% minimum K_2O, same basis..ton.25.40 -26.60
Gran., bulk, c.l., works..unit-ton. .35 • .37
bagged, 60% minimum K_2O, same basis..ton.26.00 -27.20

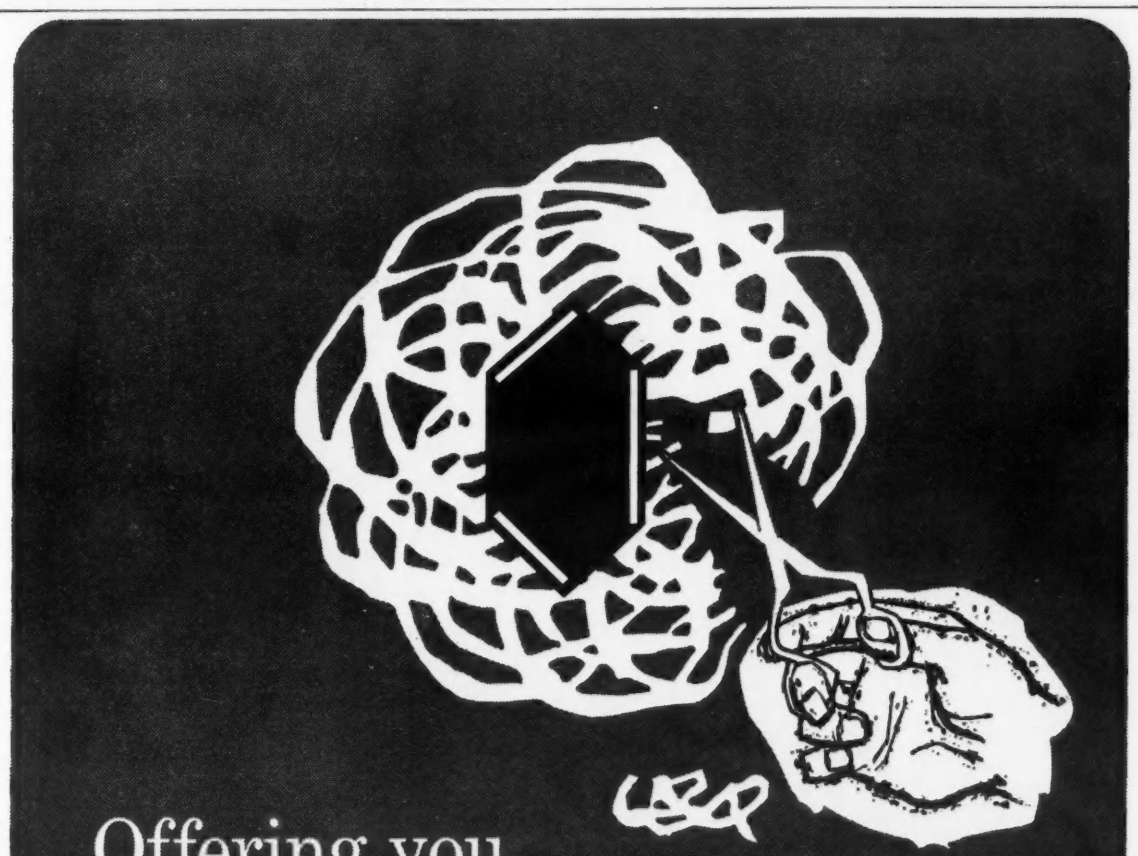
Inside prices apply to material contracted for prior to July 1, 1959.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots..100 lbs.17.00 • —
bbls., smaller lots....100 lbs.18.00 -19.00
gran., bgs., 20-ton lots..100 lbs. 9.50 • —
bgs., smaller lots....100 lbs.11.00 -12.00
powd., bgs., 20-ton lots..100 lbs.10.50 • —
bgs., smaller lots....100 lbs.12.00 -13.00

Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b. works E..lb. .32 • —
Potassium pentaborate, gran., dms., c.l., works..ton.219.50 • —
dms., ton lots, ex whse....ton.311.00 • —
dms., smaller lots, ex whse..ton.316.00 • —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works..lb. .18½- —
dms., l.c.l., works.....lb. .19 • .20
Potassium permanganate, coml., kgs., works..lb. .25 • .33
USP, dms., works.....lb. .29 • .35
Potassium persulfate, dms., c.l., works..lb. .17½- —
dms., l.c.l., works .....lb. .18 • .21
Potassium pyrophosphate, tetrabasic, dms., works..lb. .15½- .18½
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate yellow (see Potassium ferro-cvanide).
Potassium silicate, electrical grade, 30° Be, 1.2.0, dms., c.l., works..100 lbs. 6.50 • —
dms., l.c.l., 5 dm. lots or more, works.....100 lbs. 7.25 - 7.65
tanks, works.....100 lbs. 6.15 • —
Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works..100 lbs. 5.95 • —
dms., l.c.l., 5 dm. lots or more, works..100 lbs. 6.70 • —
tanks, works.....100 lbs. 5.60 • —

Potassium silicate, glass grade, bgs., c.l., works..100 lbs.17.30 -18.00
bgs., l.c.l., works.....100 lbs.17.80 • —
Soln., 29° Be. 1:2.5, dms., c.l., works..100 lbs. 4.95 • —
dms., l.c.l., 5-dm. lots or more, works..100 lbs. 5.70 • —
tanks, works .....100 lbs. 4.60 • —
Potassium silicofluoride, bgs., works. lb. .03½- .10
Potassium silicofluoride in drums, 0.4c. per lb. higher.
Potassium stannate, dms., frt. alld. E..lb. .784 - .837
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works..unit-ton. .62½- .64¼
Inside price applies to tonnage contracted for prior to July 1, 1959.
Outside price applies to tonnage contracted for after that date but also for delivery during the current month.
Potassium sulfate, NF VII, cryst., dms., lb. .31 • .33
NF VII, gran., dms.....lb. .18½- —
NF VII, powd., dms.....lb. .16 • .17
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).
Potassium thiocyanate, NF, cryst., dms., works..lb. .96 • .98
Tech., dms., works.....lb. .77 • .79



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Potassium titanate, etns., c.l., works, lb. .16¼- —
etns., 5-ton lots, works lb. .16½- —
etns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price, ton.13.45 • —
bulk, works, July forward ton.14.00 • —
Potassium-sodium tartrate, NF, gran. or powd., 250-lb. dms., c.l., works E lb..42½- —
250-lb. dms., 5,000-lb. lots, same basis lb. .43 • —
250-lb. dms., same basis lb. .43¼- —
Potassium-titanium fluoride, fib. dms., works lb. .39 • .40
Potassium-zirconium flouride, fib. dms., c.l., works lb. .50 • —
fib. dms., l.c.l., works lb. .52½- .55
Pregnenolone, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld lb. 2.25 • —
USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb. 2.40 • —
dms., 500 lbs. lb 2.45 • —
dms., 100 lbs. lb. 2.50 • —
Progesterone, USP, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Propenyl guaethol, dms. lb.24.30 -27.00
b-Propriolactone, dms., c.l., t.l., f.o.b. works lb. .89 • —
dms., l.c.l., l.t.l., same basis lb. .90 • —
tanks, same basis lb. .87 • —

Propionic acid, syn., pure, dms., c.l., works lb. .23¼- —
dms., l.c.l., works lb. .24¾- —
tanks, works lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd lb. .16¼- —
tanks, dlvd. lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - .15
dms., l.c.l., dlvd lb. .15½- .16½
tanks, dlvd. lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb. lots, works lb. 3.90 - 4.40
n-Propyl-p-hydroxbenzoate, USP, dms. lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo.55.00 • —
bots., smaller lots kilo.55.10 -55.30
n-Propylamine, dms., c.l., dlvd. lb. 1.24 • —
dms., l.c.l., same basis lb. 1.255 • —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., l.c.l., same basis lb. .0995- —
tanks, same basis lb. .07 • —
Propylene dichloride prices in West 1c. higher, same basis.
Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 • —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP, dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l., same basis lb. .18¾- —
Propylene glycol methyl ether, dms., c.l., dlvd. lb. .20 • —
dms., l.c.l., same basis lb. .21 • —
tanks, same basis lb. .18¼- —

Propylene oxide, dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l., dlvd. E lb. .18½- —
tanks, dlvd. E lb. .14½- —
Psyllium seed, black, bgs lb. .30 • .35
Blonde, bgs. lb. .18 • .20
Husks, bgs. lb. .42 • .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03¾- .04¼
bgs., smaller lots lb. .03⅞- —
Imp., Italian, silk-screen, coarse, bgs, ton lots lb. .06½- —
fine, bgs., ton lots lb. .04 • —
sun dried, coarse, bgs. ton.60.00 • —
fine, bgs. ton.60.00 -70.00
Pumpkin seed, bgs. lb. .25 • .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bgs., ton, works lb. .50 • —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 • —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works, gal. 9.60 • 9.80
Pyrethrum liquid, 100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb.11.00 -11.35
purif, 20%, dms., works lb.11.00 -11.35
Pyridine, denat., dms., c.l., works and frt. equald gal. 2.55 • —
dms., l.c.l., same basis gal. 2.70 • —
Refd., 2°, non-ret. dms., c.l., same basis lb. .69½- —
dms., l.c.l., same basis lb. .70 • —
tanks, same basis lb. .65 • —
Pyridoxine hydrochloride, USP, 500-gram bots., dms., f.o.b. works kilo.95.00 -100.00

Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 • 6.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb. 3.50 • —
Pyrogallol, NF, 100-lb. dms. lb. 3.50 • —
Pyroxylin, USP, bots. lb. 9.50 • —

Q

Quassia chips lb. .10 • —
Quicksilver (see Mercury metal).
Quince seed, bgs lb. 1.30 - 1.40
Quinidine sulfate, USP, 1,000-oz. dm oz. .74½- —
Quinine, NF, 1,000-oz. dm oz. .3105- —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .2330- —
Quinine hydrochloride, 1,000-oz. dm. oz. .3030- —
Quinine sulfate, USP, 1,000-oz. dm. oz. .2575- —
Quinoline, dms., c.l., frt. equald. lb. .50¾- —
dms., l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 • —

R

R salt paste, dms., frt. alld., 100% basis lb. .98 • —
Powd., frt. alld. 100% basis lb. 1.08 • —
Rapeseed oil, dms. lb. .15 • .15½
tanks lb. .13 • —
Rare earth oxalate, NF, 45-50%, bgs. works lb. 1.15 • —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.25 • —
Reserpine, cryst., bots gram. 1.25 • —
Resorcinol, tech grade, dms., c.l., works, frt. equald lb. .77¼- —
dms., l.c.l., same basis lb. .78½- —
USP, powd., dms., works lb. 2.95 • —
Resorcinol monoacetate, NF, dms. lb. 2.50 • —
Rhatany root, bgs lb. .14 • .16
Rhodamine red toner, molybdated, PMA, kgs., works lb. 6.00 • —
Tungstated, PTMA, works, kgs lb. 6.60 • —
Rhodinol, 5-lb. cans lb.42.00 -51.00
Synthetic lb.14.00 -16.00
Rhubarb root, India, whole, bgs. lb. .25 • —
powd., bgs. lb. .35 • —
tanks, same basis lb. .14½- —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo.36.00 • —
Riboflavin, USP, readily soluble, lots, dlvd kilo.13.00 • —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo.104.50 • —
Rice bran oil, clarified, dms., l.c.l. lb. .14 • .14½
tanks, dlvd. E lb. .12 Nom.
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots. lb.1,152.00- —
Turkish, bots. lb.560.00 -750.00
Rosemary oil, Spanish, NF, cns., dms lb. .97 - 1.40
Spanish, tech., cns., dms lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, unit-lb. .12 • —
Resin, 25-45%, fib. dms., works, unit-lb. .12 • —
Rottenstone, bgs., 5-ton lots, exwhse lb. .03¾- —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 • —
Group 3 gal. .13875- —
Houston, Texas gal. .155 • —
Rue oil, bots lb. 2.75 • 3.00
Rutin, NF, fib. dms., 10 kilo lots, kilo.13.00 • —
fib. dms., 5 kilo lots kilo.13.50 • —
fib. dms., 1 kilo kilo.14.00 • —
Ryania, 100%, powd., bgs., c.l., works lb. .22 • —
bgs., l.c.l., same basis lb. .24 • —

S

S acid, bbls., works lb. 3.25 • —
Sabadilla seed, activated, ground with lime, bbls lb. .42 • .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 • —
USP, gran., soluble, dms., 1,000-lb. lots lb. 1.40 • —
dms., smaller lots lb. 1.50 • —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.45 • —
dms., smaller lots lb. 1.55 • —
Saccharin, USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 • —
dms., smaller lots lb. 1.53 • —
Safflower oil, dms., New York lb. .1755- .18
tanks, Atl. Coast lb. .1555- —
Saffron, Mancha Superior, tins lb.20.50 • —
Safrol, dms. lb. .65 • —
Sage, Dalmatian, bgs lb. .40 • —
Greek, cns. lb. .15 • —
Italian, cns. lb. .18 • —
Sage oil, clary, bots lb.15.50 -18.00
Dalmatian, cns. lb. 2.85 • 3.25
Spanish, cns. lb. 1.25 • 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb. 1.23 • —
dms., l.c.l., same basis lb. 1.25 • —
Salicylamide, 100-lb. dms lb. 1.05 • —
Salicylic acid, tech., fib. dms., c.l., t.l., dlvd lb. .40½- —
fib. dms., l.c.l., dlvd lb. .44¾- —
Salicylic acid, USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb. fib. dms., less than 1,000 lbs lb. .54¾- —
100-lb. fib. dms., 1,000 lbs. or more lb. .53¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .56¾- —
USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .58¾- —
100-lb. fib. dms., less than 1,000 lbs. lb. .61¾- —
Salol, NF, gran., bbls., kgs lb. 1.20 • —
Powdered salol, 25c. per lb. higher.
Salt, rock, paper bgs., c.l. 100 lbs. 1.09 • —
Salt, table vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 • —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton.28.00 • —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 • .66
powd., fib. dms. lb. .75 • .76

SILICONE NEWS from Dow Corning

Silicones Sell...Satisfy!

The average woman today may not be familiar with all the specific advantages of silicone cosmetics, but is well aware of the number of real benefits she has derived when using other items in the home that have "with silicones" on the label . . . greater ease of application; longer lasting protection; a better product.

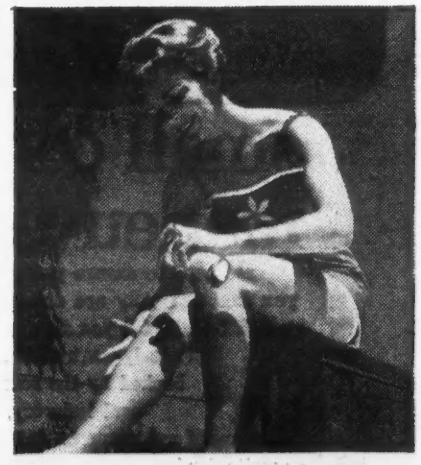
If you seek sales and repeat sales, as a woman seeks to maintain beauty, turn to Dow Corning Silicones. No other ingredients provide so many benefits.

She'll buy if it's better... and silicones make it better

A prized possession, beauty is seldom neglected . . . is given all the attention, all the protection possible. Today's woman looks to cosmetics to protect as well as accentuate her natural beauty. And she finds this combination in cosmetics and toiletries that contain Dow Corning Silicones.

She has learned of the inherent water repellency of silicones . . . how this works against chapping; keeps toiletries from washing away; keeps protection on the job longer. Water-borne irritants are repelled, yet the skin remains free to "breathe". Because silicones resist oxidation, cosmetics stay fresh, never turn rancid.

Silicones also contribute to the ease and pleasure of applying creams, lotions, and other toiletries. Spreading is smooth, easy, with no "balling" or "rolling". Products are pleasant to the touch; never leave a sticky or slippery feeling. Penetration is fast, requires no tedious rubbing-in.



Contact the Dow Corning office nearest you to learn how silicones make good cosmetics better, increase sales. Address Dept. 6309.

first in silicones

Dow Corning CORPORATION
MIDLAND, MICHIGAN

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.

Sandalwood oil, cns.....lb.22.00 -22.50
Sarcosine, tech., tanks, f.o.b., works, frt. equald..lb. 1.03 - —
lb. No stocks.
Sardine oil, crude, tanks, Pac. coast.
Sassafras oil, artif., dms.....lb. .43 - —
Nat., dom., dms.....lb. 1.40 - —
Savory oil, cns.....lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis..lb. .83 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots..oz.13.00 - —
Sebacic acid, CP, bgs., c.l., works. lb. .69½- —
bgs., l.c.l., works.....lb. .71½- —
Purified, bgs., c.l., works.....lb. .65½- —
bgs., l.c.l., works.....lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots..lb. .30½- —
fib. dms., smaller lots.....lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls.....lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls..lb. .20 - .22
siftings.....lb. .16 - —
Tinnevelly, No. 1, bls.....lb. .22 - —
No. 2, bls.....lb. .18 - —
No. 3, bls.....lb. .14 - —
pods, bls.....lb. .23 - —
powd., bbls., bxs.....lb. .17 - —
Serpentaria root, bls.....lb. 6.50 - —
Sesame oil, USP, dms.....lb. .38 - .39
Sesame seed, Colombian, bgs.....lb. .15½- —
Lebanese, hulled, bgs.....lb. .19 - —
Nicaraguan, hulled, bgs.....lb. .24 - —
nat., bgs.....lb. .14 - —
Salvadorian, Nat., bgs.....lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots..lb. .46 - —
dms., l.c.l., works.....lb. .22 - .30½
bbls., 1,500-lb. lots.....lb. .47 - —
kgs., 1,500-lb. lots.....lb. .48 - —

Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.

Shellac, bleached, refd., bgs., 1,500-lb. lots..lb. .56 - —
bbls., 1,500-lb. lots.....lb. .57 - —
kgs., 1,500-lb. lots.....lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots..lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots, lb. .34 - .37
superfine, bgs., 10-bg. lots....lb. .32 - .34

Shellac in 1 to 10-bg. lots 1c. per lb. more.

Shingle stain oil, tar distillate, dms., c.l., works..gal. .37 - —
dms., l.c.l., works.....gal. .48 - —
tanks, works.....gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works..lb. .06½- .18½
paper bgs., l.c.l., works....lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works....lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton.25.00 - —
bgs., l.c.l., works, ex whse. ton.45.00 -55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works..ton.20.00 - —
bgs., l.c.l., works.....ton.25.00 - —
99½%, 140 mesh, bgs., c.l., works..ton.15.00 - —
bgs., l.c.l., works.....ton.20.00 - —
Silicon tetrachloride, tech., dms., c.l., works..lb. .18 - —
tanks, works.....lb. .17 - —
Silver bullion, ingots, cs..Troy oz. .91⅜- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots.....oz. .95¼- —
bots., 100-oz. lots.....oz. .96¼- —
Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works..oz. .67¼- —
bots., 250-500 oz., same basis. oz. 67¾- —

USP granular silver nitrate 4c. per oz. higher.

Silver proteinate, mild, USP, 16-oz. bots..oz. 1.46 - —
Snakeroot oil, Canada, cns.....lb.40.00 -43.00
Soapbark, crushed, bls.....lb. .30 - .35
Powd., bls.....lb. .35 - .40
Whole, bls.....lb. .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works..100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works.....100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works..100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works.....100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald..100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis..100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis..100 lbs. 2.90 - 3.00
Soda, caustic, liq, 73%, sellers' tanks, works, dry basis, 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis..lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works, 100 lbs. 2.50 - —
bgs., smaller lots, works..100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E..lb. .14½- —
NF, 60%, gran., dms., c.l., works, lb. .15½- —
dms., l.c.l., works.....lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more..lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted..lb. 1.90 - —
Sodium antimoniate, bgs., c.l., dlvd. E..lb. .27½- —
bgs., l.c.l., dlvd. E.....lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm., less than ton lots, f.o.b. works..lb. .24 - —
ton lots or more, same basis. lb. .23½- —
Sodium arsenite, 90% pink powder, 75% arsenious oxide, leaders, dms., ton lots or more, works..lb. .17½- —
dms., less than ton lots, works..lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo dms., f.o.b. works..kilo.10.00 - —
10-kilo dm., same basis.....kilo.10.35 - —
5-kilo dm., same basis.....kilo.10.75 - —
1-kilo bot., same basis.....kilo.11.00 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld..lb. .35 - —
dms., l.c.l., same basis.....lb. .39 - —
USP, dms., c.l., t.l., frt. alld..lb. .38 - —
dms., ton lots, same basis....lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .43 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works..100 lbs. 2.95 - —
bgs., l.c.l., works.....100 lbs. 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works.....100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l., t.l., works..lb. .13 - —
bgs., l.c.l., works.....lb. .13½- .14¾
Sodium bichromate in dms. ½c. per lb. higher.
Sodium bifluoride, bbls., c.l., works, frt. equald..lb. .19½- —
bbls., l.c.l., same basis.....lb. .2025- —
Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 - —
dms., c.l., frt. equald.....100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald.....100 lbs. 3.50 - 4.10
Sodium bisulfite, anhyd., bgs., c.l., works..100 lbs. 5.00 - —
bgs., l.c.l., works.....100 lbs. 5.45 - —
Soln., 35°, bbls., c.l., works.100 lbs. 1.70 - —
bbls., l.c.l., works.....100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium borohydride, powd., dms., c.l., works..lb.19.90 - —
dms., l.c.l., works.....lb.33.00 -40.00
Sodium borohydride, stabilized water soln., 12% NaBH, 100% basis, dms., works..lb.15.00 - —

Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.

Sodium bromide, USP, gran., dms., works..lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works..100 lbs. 3.10 - —
bgs., l.c.l., works.....100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works..lb. .09 - —
dms., l.c.l., works.....lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works..lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works....lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works..lb. .27 - —
dms., l.c.l., works.....lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works..lb. .14¾- —
fib. dms., l.c.l., works.....lb. .15¼- .16½
Sodium chromate tetrahydrate, bgs., c.l., t.l., works..lb. .1015- —
bgs., l.c.l.....lb. .1065- .1190
Sodium citrate, anhyd., 200-lb. dm., f.o.b. works E..lb. .62 - —
NF VIII, gran, bgs., c.l., same basis..lb. .26 - —
USP XIV, gran., bgs., c.l., same basis..lb. .29 - —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works..lb. .85 - —
dms., smaller lots, works.....lb. .90 - 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb. lots..lb. .176 - —
dms., same basis, 5,000 to 19,999-lb. lots..lb. .188 - —
dms., same basis, 1,000 to 4,900-lb. lots..lb. .198 - —
Sodium cyclamate, 100-lb. dm., f.o.b. works..lb. 1.95 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works..lb. .18 - —
250-lb. dms., l.c.l., works....lb. .18¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works..lb. .13 - —
250-lb. dms., l.c.l., works.....lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., l.t.l., same basis..lb. .47 - .52
tanks, same basis.....lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots..lb. .13½- —
bgs., smaller lots.....lb. .14¾- —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald..lb. .1390- —
fib. dms., l.c.l., works, frt. equald..lb. .1465- —
Sodium formate, bgs., c.l., works. 100 lbs. 7.05 - —
bgs., l.c.l., ex whse.....100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms.lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works..lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 - —
dms., 50-99 lbs., same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
dms., 1,000 lbs. or more, same basis lb. .93 - —
Sodium hydrosulfide (see Sodium sulfhydrate).

Cowles
METASILICATE
(CRYSTAMET)
Is Freer Flowing

Crystamet is the sodium metasilicate pentahydrate with smoother, more uniform, pure white particles. This means Crystamet is dust-free, easier to handle and use, more resistant to caking, compounds better. Write for a free sample of Crystamet 2040, or the coarser 1020 or finer 3080 grades, and a technical data sheet. Just mail request on your company letterhead.

Cowles
1885—75th Anniversary—1960
CHEMICAL COMPANY
7018 Euclid Avenue · Cleveland 3, Ohio

Sodium hydrosulfite, dms. c.l., frt. alld lb. 23½- —
dms., l.c.l. frt alld. lb. 25¼- —
Sodium hydroxide, NF, pellets, 100-lb dms., 1 to 100-dm. lots. lb. .23½- .25
Sodium hydroxide, tech (see Soda, caustic).
Sodium hypophosphite, NF, dms. 1,000-lb. lots lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 1.98 - —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., l.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - 6.50
l.c.l., bgs., works 100 lbs. 4.40 - 7.00
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate octahydrate, gran., bgs., c.l., works ton.210.00 - —
bgs., ton lots, ex whse 100 lbs. 8.00 - —
bgs., smaller lots, ex whse. 100 lbs. 9.25 -11.25
Tetrahydrate, bgs., c.l., works. ton.210.00 - —
bgs., ton lots, ex whse 100 lbs.13.93 - —
bgs., smaller lots, ex whse. 100 lbs.15.18 -17.18
Sodium, metallic, bricks, c.l., works. lb. .21 - —
Fused, 18,000-lb. lots or more, works lb. .19¼- —
tanks, works lb. .17 - —

Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 - —
dms., c.l., same basis 100 lbs.11.70 - —
dms., l.c.l., same basis 100 lbs.12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., l.c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 - .99
Cryst., dms., works, frt. alld lb. .74 - .76
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. lb. .72 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton.48.00 - —
bulk, c.l., works ton.44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton.48.00 - —
bulk, c.l., same basis ton.44.00 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs.11.00 - —

Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls., l.c.l., works 100 lbs. 7.60 - 7.90
Sodium oxalate, 88%, bgs., works. 100 lbs.12.35 - —
99%, bgs., works 100 lbs.15.40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l., same basis lb. .25 - —
dms., l.c.l., same basis lb. .26½- .33
Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 - —
Sodium perborate, NF, tech., bgs., c.l., works lb. .18½- —
bgs., l.c.l., works lb. .19 - .21
Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss lb. .21½- —
dms., l.c.l., same basis lb. .22 - .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 - —
Sodium phenosulfonate, USP, IX, gran., dms lb. .52 - .53
NF, powd., dms. lb. .55 - .56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.95 - —
bgs., l.c.l., same basis 100 lbs. 8.35 - 9.40
Dibasic, cryst., bgs., c.l., t.l., frt. equald 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald 100 lbs. 5.00 - 5.75
Dibasic, duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 - —
bgs., l.c.l., same basis 100 lbs. 8.10 - —

Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 - .20½
Monobasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 - —
bgs., l.c.l., same basis 100 lbs. 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 - —
bgs., l.c.l., frt. equald 100 lbs. 9.45 -10.05
Sodium phosphate in dms. 60c. to 80c. higher than bgs.
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —
Sodium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.
Sodium prussiate, yellow (see Sodium ferrocyanide).
Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 12.35
Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l. same basis 100 lbs. 9.21 - 9.71
Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
Sodium sesquicarbonate, bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. zone 4 100 lbs. 5.35 - 5.60

Sales zones are (1) Atl. states E. of Miss., H and N of south bound of Ky. and Va., Ala., La., and Miss. south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St Louis; (2) Ark. E. of 98° Ga.; Io va (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 98°, Kan., Neb W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms., c.l., t.l., works 100 lbs. 6.20 - —
Sodium sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works 100 lbs. 1.20 - —
47° Be., 1:29.9, turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 - —
52° Be, 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1.3.2, bgs., works ton.67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .725- —
Sodium silicofluoride in dms., 0.4c. per lb. higher.
Sodium stannate, dms., works, frt. alld. E lb. .642 - .702
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate, bbls., works lb. .22 - —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton.54.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton.36.00 - —
bulk, c.l., works ton.32.00 - —
USP, cryst., fib. dms. lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 - —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 7.95 - —
Anhyd., tech., bgs., c.l., works. 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —
Sodium sulfocyanide, CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).
Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05½- —
Sodium thiocyanate, CP, dms. lb. .55 - .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —
Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb. bgs., l.c.l., l.t.l., frt. equald 100 lbs. 8.15 - —
Sodium thiosulfate, tech., anhyd., photo grade, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb. bgs., l.c.l., l.t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 4.95 - —
Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., l.c.l., l.t.l., frt. equald 100 lbs. 5.20 - —
Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton lots or less, works lb. .14¾- —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb. cns., c.l., frt. alld. E lb. .42 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

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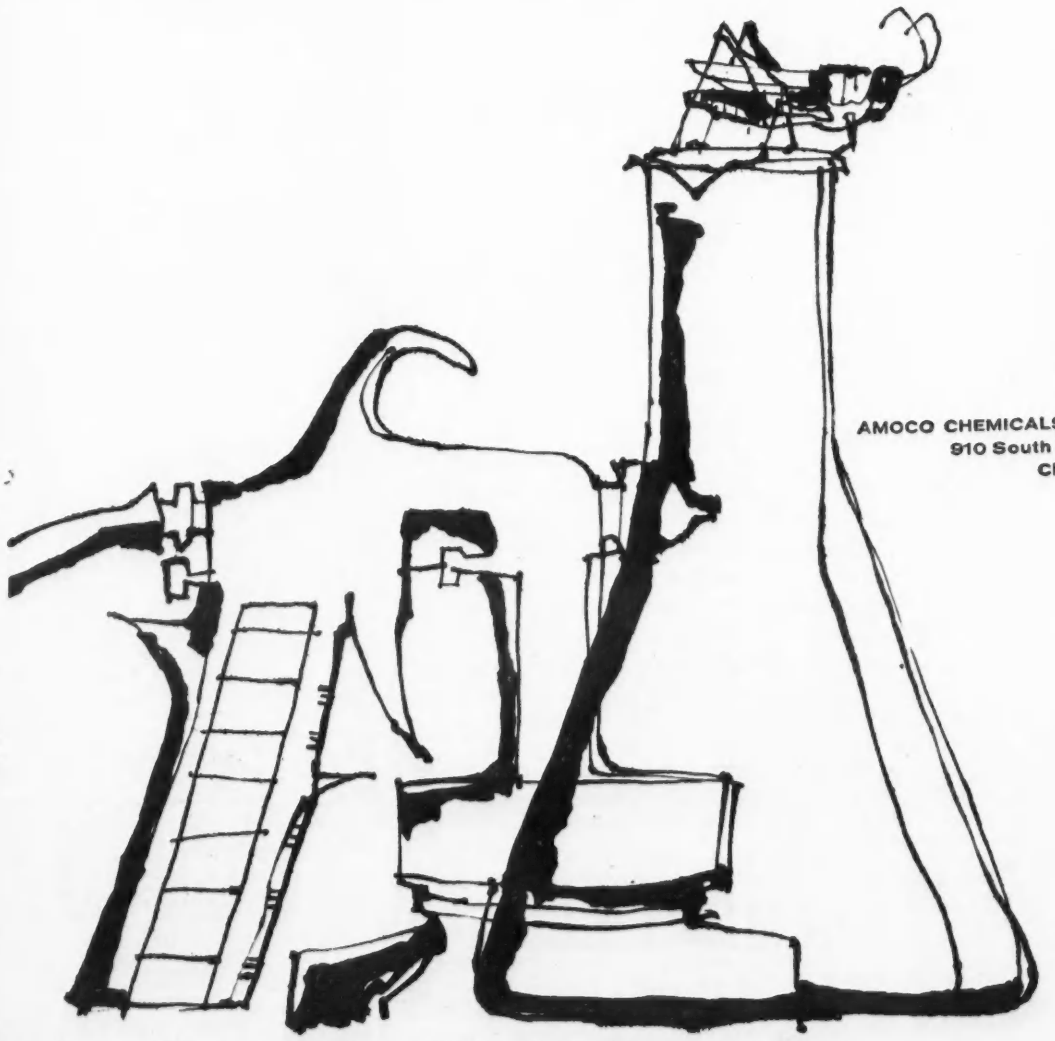

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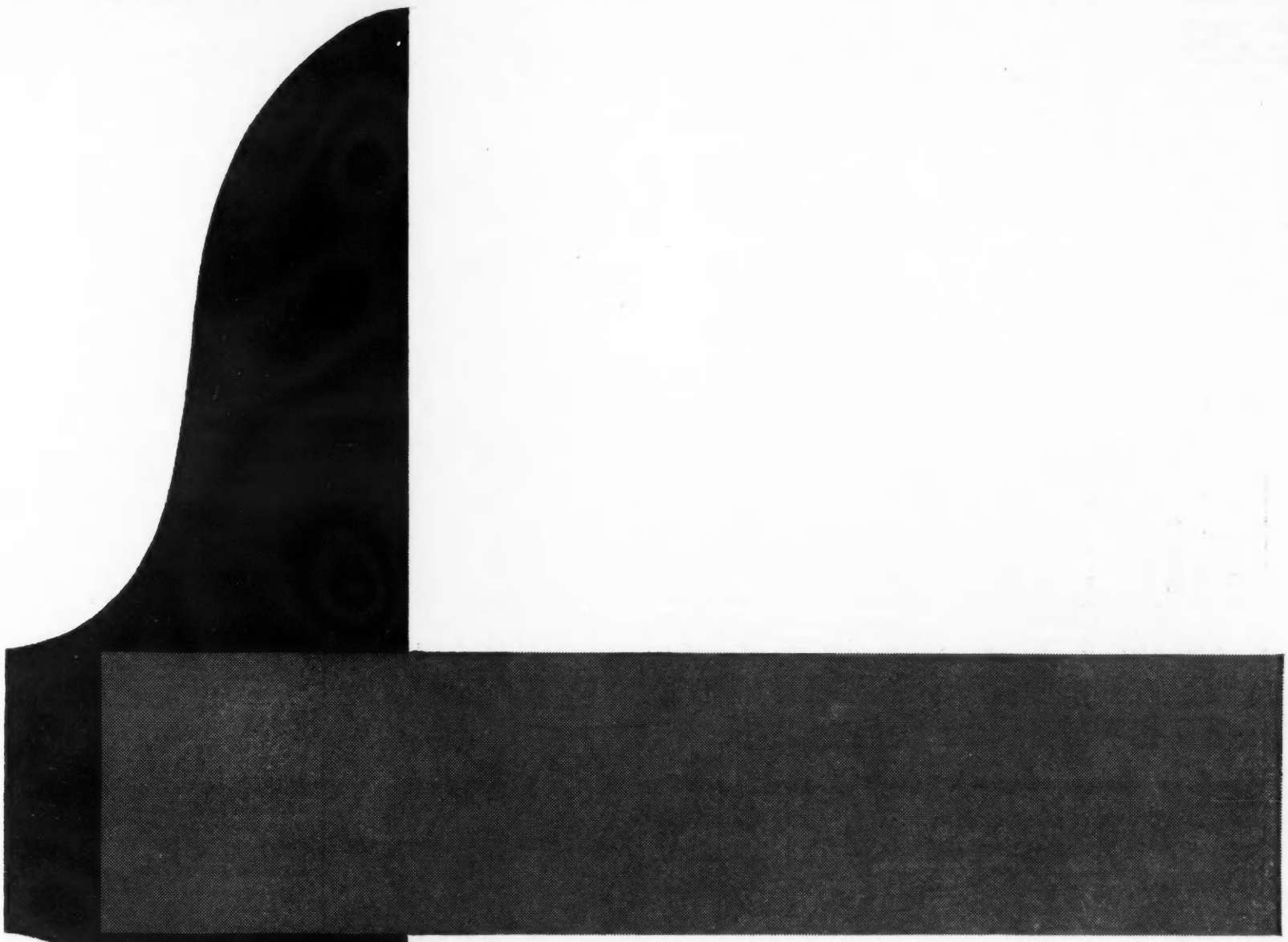

PLANNING! This is the function that makes the Cyanamid Fine Chemicals Department so much more than a bulk producer of fine pharmaceuticals. The ability to devise new products, resolve product problems, or help analyze and realize new marketing ventures, is all part of our custom synthesis service... routinely available to clients. Whatever the nature of your product or problem, "Fine Chemicals" planning and production facilities can be an important factor in your progress.

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AMERICAN CYANAMID COMPANY
FINE CHEMICALS DEPARTMENT
30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

CYANAMID

Sodium tripolyphosphate, bgs., c.l., works, frt. equald	100 lbs.	8.16 - —
bgs., l.c.l., same basis	100 lbs.	8.56 - 9.06
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works	100 lbs.	8.95 - —
bgs., l.c.l., works	100 lbs.	9.70 -13.13
dms., c.l., works	100 lbs.	9.45 - —
dms., l.c.l., works	100 lbs.	10.20 -10.60
Sodium tungstate, tech., kgs., dlvd. E	lb.	1.32 - —
Sodium-ammonium phosphate, purif., cryst., dms., works	lb.	.52 - —
Sodium-carboxymethyl cellulose (see CMC).		
Sodium-cinchophen (see Cinchophen-sodium).		
Sodium - formaldehyde sulfoxylate, dms., c.l., dlvd	lb.	.21 - —
dms., l.c.l., same basis	lb.	.21½- —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works	lb.	.28 - —
fib. dms., smaller lots, same basis	lb.	.30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt. equald	gal.	.30 - .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360°F. b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York	gal.	.29 - —
Houston, Texas	gal.	.29 - —
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York.	gal.	.30 - —
Houston, Texas	gal.	.30 - —
Solvent naphtha, petroleum, partial aromatic, 211°-265°F. b.r., 31°C. m.a.p., tankcars, New Jersey and New York	gal.	.235 - —
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York	gal.	.275 - —
319°-380°F. b.r., 27°C. m.a.p., tankcars, New Jersey and New York	gal.	.27 - —
322°-395°F. b.r., 28°C. m.a.p., tankcars, New Jersey and New York	gal.	.28 - —
Sorbitol, powd., dms., c.l., works	lb.	.38½- —
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works	lb.	.33½- —
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.35½- —
fib. dms., smaller lots, works	lb.	.38½- .40½
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works	lb.	.34 - —
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.36 - —
fib. dms., smaller lots, works	lb.	.39 - .41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works	lb.	.18 - —
dms., l.c.l., works	lb.	.19 - —
tanks, works	lb.	.16¼- —
cryst., resin grade, pellets, dms., c.l., works	lb.	.23 - —
dms., 1 to 5-ton lots, works	lb.	.25 - .26
dms., 10,000 to 20,000 lb. lots, works	lb.	.40½- —
Sorbitol, soln., coml., aqueous, dms., c.l., works	lb.	.26 - —
dms., l.c.l., works	lb.	.27 - —
Soya protein, chemically isolated, old process, bgs., c.l., works	lb.	.23 - —
bgs., l.c.l., works	lb.	.23¼- .23½
Chemically isolated, new process, bgs., c.l., works	lb.	.20 - —
bgs., l.c.l., works	lb.	.20¼- .29½
Soybean meal, 44%, bulk, unrestricted, Decatur	ton.	55.00 - —
Soybean oil, crude, tanks, Decatur	lb.	.09¼- —
Foots, soapstock, acid 95%, tanks, N. Y.	lb.	.05 - —
Refd., alkali, dms.	lb.	.1350- .1375
tanks	lb.	.1150- —
Clarified, dms.	lb.	.1300- .1325
tanks	lb.	.1100- —
Salad, dms.	lb.	.1325- .1350
tanks	lb.	.1125- —
Soybean oil acids, dbl. dist., dms.,	lb.	.17 - .19½
tanks	lb.	.14½- —
S. D., dms.	lb.	.15¾- .18¼
tanks	lb.	.13¼- —
Sparteine sulfate, cns., 100 oz. or more	oz.	.80 - —
Spearmint leaves, dom., bls	lb.	.75 - —
Spearmint oil, NF, dms.	lb.	3.75 - 4.50
Sperm oil, bleached, winter, 45°, dms	lb.	.1575- .1675
tanks	lb.	.1375- —
Nat., winter, 45°, dms	lb.	.1475- .1575
tanks, works	lb.	.1275- —
Spermaceti wax, blocks, cs	lb.	.31 - .33
Cakes, cs.	lb.	.32 - .34
Spruce oil, cns., dms.	lb.	2.10 - 3.55
Squill, white, bls.	lb.	.16 - .18
Powd., bbls., bxs.	lb.	.17 - .20
St. John's bread, edible, bls.	lb.	.17 - —
Stannic chloride, anhyd., dms., works	lb.	.812 - .854
Stannic oxide, dms., dlvd.	lb.	1.10 - 1.11
Stannous chloride, anhyd. dms., works	lb.	1.007 - 1.263
Hydrous, cryst., dms., works	lb.	.87 - .88
Stannous sulfate, dms., works	lb.	1.062 - 1.102
Star root (see Helonias root).		
Stargrass root (see Aletris root.)		
Stavesacre seed, bgs.	lb.	.60 - .61
Stearic acid, dbl., pressed bgs	lb.	.15¾- .18¼
Single-pressed, bgs.,	lb.	.15¼- .17¾
Triple-pressed, bgs.	lb.	.17½- .20
Stearine, oleo (see Oleostearine.)		
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York	gal.	.18 - —
tanks, Houston	gal.	.1475- —
tanks, group 3	gal.	.12875- —
Stramonium leaves, bgs.	lb.	.13 - —
Streptomycin sulfate, bulk, gram.		.035 - .036
Strontium bromide, NF, cryst., 100-lb. lots, dms., f.o.b. E	lb.	.92 - —
Strontium carbonate, pure, dms., 5-ton lots or more, works	lb.	.35 - —
dms., 1-ton lots, works	lb.	.37 - —
Tech., dms., works	lb.	.19 - —
Strontium chromate, fib. dms., dlvd.	lb.	.48 - —
Strontium iodide, jars, 25-lb lots	lb.	3.57 - —
Strontium nitrate, bgs., c.l., works.	100 lbs.	11.00 - —
bgs., l.c.l., works	100 lbs.	12.00 - —
Strontium salicylate, NF, dms	lb.	1.88 - —
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works.	ton.	56.70 -66.15
Strophanthin G (see Quabain, USP).		
Strophanthin K, bots.	oz.	25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs	lb.	3.50 - 3.75
Styrax gum, USP, cs.		4.50 - 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld.	lb.	.17 - —
dms., l.c.l., same basis	lb.	.19 - —
tanks, same basis	lb.	.14½- —
Styrene monomer, tech., 99.2%, dms., c.l	lb.	.1501- —
dms., l.c.l., same basis	lb.	.1701- —
tanks, bulk, same basis	lb.	.1251- —

Above prices are escalated for each calendar quarter on the basis of cost of benzene and petroleum refining labor.

Styrolyl acetate, bots.	lb.	1.10 - —
Succinic acid, purif., cryst., dms., t.l., frt. alld	lb.	.62 - —
dms., l.t.l., same basis	lb.	.63 - .75
Succinic anhydride, dms., c.l., t.l., dlvd	lb.	.51 - —
dms., l.c.l., same basis	lb.	.52 - —
Sucrose, refd., white, bgs., refy E.	lb.	.0970- —
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd	lb.	.33½- —
dms., l.t.l., same basis	lb.	.35 - —
tanks, same basis	lb.	.31 - —
100%, t.l., dms., dlvd	lb.	.35½- —
l.t.l., dms., same basis	lb.	.37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works	lb.	1.00 - —
Sugar (see Sucrose).		
Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works	lb.	.60 - .65
80-lb. ctns., spot	lb.	.65 - .75
Sulfabenzamide, dms.	kilo.	8.80 - 9.90
Sulfabenzamide-sodium, dms.	kilo.	9.00 -10.10
Sulfacetamide, USP, fib. dms	kilo.	6.61 - 6.83
Sulfacetamide-sodium, USP, fib. dms	kilo.	8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms	kilo.	23.35 -24.45
USP, powd., dms.	kilo.	22.60 -23.70
Sulfadiazine-sodium, USP, dms	kilo.	24.80 -25.90
Sulfaguanidine, NF X, dms	kilo.	5.50 - 6.60
Sulfamerazine-sodium, USP, powd., dms	kilo.	24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms	kilo.	19.65 -20.75
USP XV, powd., dms.	kilo.	18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works	100 lbs.	16.00 - —
dms., l.c.l., l.t.l., works	100 lbs.	17.50 18.50
Gran., dms., c.l., t.l., works.	100 lbs.	14.75 - —
dms., l.c.l., l.t.l., works	100 lbs.	16.25 -17.25
Sulfanilamide, NF, reg., 1,000 lb., frt. equald	lb.	1.50 - —
NF, fib. dm., frt. equald	lb.	1.55 - —
Sulfanilamide quinoxaline, veterinary, dms	kilo.	16.28 - —
Sulfanilic acid, tech., dms., c.l., frt. alld	lb.	.21 - —
dms., l.c.l., frt. alld	lb.	.23 - —
Sulfapyridine, USP XV, powd., bots., tins	kilo.	15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms	kilo.	16.55 -17.65
Sulfathiazole, NF X, microcrystals, dms	kilo.	6.25 - 6.90
NF X, powd., dms.	kilo.	5.50 - 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more	lb.	2.35 - —
Sulfur, coml., flour, bgs., mines.	100 lbs.	2.35 - —
bbls., mines	100 lbs.	3.30 - —
lump, bgs., mines	100 lbs.	2.25 - —
bbls., mines	100 lbs.	2.80 - —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines	long-ton.	23.50 - —
export, f.o.b. vessels, Gulf ports.	long-ton.	25.00 - —
US and Canada, f.o.b. vessels Gulf ports	long-ton.	25.00 - —

Domestic dark sulfur prices are $1 per long-ton lower.

Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos	long-ton.	24.00 - —

Mexican dark sulfur price is $1 per long-ton lower.

Sulfur, refd., flowers, NF, bgs., mines	100 lbs.	5.65 - —
bbls., mines	100 lbs.	7.00 - —
flour, light, bgs., mines	100 lbs.	5.25 - —
bbls., mines	100 lbs.	6.25 - —
lump, bgs., mines	100 lbs.	4.95 - —
rolls, bgs., mines	100 lbs.	5.50 - —
bbls., mines	100 lbs.	6.25 - —
salt block, bgs., mines	100 lbs.	4.65 - —
virgin block, bbls., mines	100 lbs.	4.70 - —
Sulfur, rubbermakers, coml., reg., bgs., mines	100 lbs.	2.45 - —
bbls., mines	100 lbs.	3.70 - —
98-100%, passing through 325 mesh, bgs., mines	100 lbs.	2.55 - —
bbls., mines	100 lbs.	3.80 - —
refd., bgs., mines	100 lbs.	4.90 - —
bbls., mines	100 lbs.	6.05 - —
treated, 2.5% mineral oil, bgs., mines	100 lbs.	2.75 - —
bbls., mines	100 lbs.	4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald	lb.	.05¼- —
ret. dms., l.c.l., same basis	lb.	.06¼- —
tanks, same basis	lb.	.04½- —
Sulfur dioxide, liq., coml., cyls., works, frt. equald	lb.	.10 - .12
multi-unit cars, works	lb.	.0535- —
tanks, works	lb.	.045 - —
Sulfur dioxide, refrigeration, cyls., dlvd	lb.	.33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald	lb.	.05¼- —
dms., l.c.l., same basis	lb.	.06¼- —
tanks, same basis	lb.	.04½- —

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STOP! STOP THE PRESSES! Caked ink on the cylinders, poor impressions, "fill-in", lost time, wasted money—no wonder, I'm run down and irritable.
Just sit here and relax a minute while I show you the answer to a press foreman's dream.
No more ink drying "in the etch" on cylinders with high solvency LAKTANE.
LAKTANE
What's that? You heard that ESSO has a staff of experts in its refineries continually striving to improve Esso Solvents? You heard that our service is unsurpassed and our terminals conveniently located? Well, you heard exactly right!
If you can use some expert solvent assistance, why not contact your nearby Esso office—(and tell 'em Nosey sent you!)
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Division of Humble Oil & Refining Company
15 West 51st Street, New York 19, New York
In Industry after Industry..."ESSO RESEARCH works wonders with oil"

Sulfuric acid, 60° Be, cbys., c.l., works ..100 lbs. 2.00 - —
cbys., l.c.l., works ..100 lbs. 2.30 - —
tanks, works ..ton.16.60 - —
66° Be, cbys., c.l., works..100 lbs. 2.25 - —
cbys., l.c.l., works ..100 lbs. 2.55 - 3.35
tanks, works ..ton.22.35 - —
98%, tanks, works ..ton.23.50 - —
99%, tanks, works ..ton.23.70 - —
100%, tanks, works ..ton.23.95 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis. lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ..ton.29.00 - —
65%, tanks works ..ton.39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
bulk, f.o.b. vessel at Fla. unit-ton. 1.03 - —
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 - —
Sweet birch oil, USP, northern, cns lb. 4.00 - 9.50
USP, southern, cns ..... lb. 2.00 - 3.05

T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis ..... lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works ..... lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.28.00 - —
bgs., l.c.l., works ..ton.31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 - —
bgs., l.c.l., works ..ton.34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l works ton.38.00 - —
625 mesh, micronized, bgs., c.l., works ton.80.00 - —
ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ..ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
Tall oil, crude, dms., c.l., works lb. .04¼- .04½
tanks, works ..... lb. .02⅞- .03
Dist., depending on grade, dms., c.l., works lb. .06½- .07¼
dms., l.c.l., works ..... lb. .07 - .08
tanks, works ..... lb. .04½- .05¼
Tall oil, refd., depending upon grade, dms., c.l., works lb. .07¼- .09
dms., l.c.l., works ..... lb. .07½- .09¼
tanks, works ..... lb. .05¼- .06¾
Tall oil acids, dms., c.l., works..lb. .07 - .10
dms., l.c.l. ..... lb. .07½- .10½
tanks, works ..... lb. .05 - .08
Tallow, edible, tanks, dlvd ..... lb. .09⅛- .09¼
Inedible, fancy, bleachable, tanks. lb. .05¾- —
fancy, guaranteed, bulk, f.o.b. steamer lo. .06¼- —
dms., f.a.s. ..... lb. .07¼- —
tanks, dlvd. ..... lb. .05 - —
No. 1, tanks, dlvd ..... lb. .04⅞- —
Prime, tanks, dlvd ..... lb. .05½- —
Special tanks, dlvd..... lb. .05¼- —
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .08¾
50%, bbls., l.c.l. ..... lb. .10½- .11
Tallow acids, dist., dms. ..... lb. .13¼- .15¾
tanks ..... lb. .10¾- —
Hydrogenated, dms. ..... lb. .14¾- .17¼
Tallow oil, acidless, dms., c.l. ..lb. .13½- —
dms., l.c.l. ..... lb. .14½- .15½
Tangerine oil, Florida, dms..... lb. 4.75 - —
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 4.75 - 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots ..... lb. 2.06 - 2.07
NF, powd., bbls., 1,000-lb. lots..lb. 1.95 - —
bbls., smaller lots..... lb. 1.96 - 1.99
Tech., dms. ..... lb. 1.05 - —
Tansy oil, dms ..... lb. 6.60 - 8.00
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½- —
dms., l.c.l., same basis..... gal. .55½- —
tanks, same basis ..... gal. .43½- —
Tar acid oil, 25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis..... gal. .62 - —
tanks, same basis ..... gal. .50 - —
50-53%, dms., c.l., same basis. gal. .75 - —
dms., l.c.l., same basis..... gal. .77 - —
tanks, same basis ..... gal. .63 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms..lb. .70 - —
Terpineol, extra, dms..... lb. .50 - .60
Prime, dms. ..... lb. .40 - .50
Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms. ..... lb. .53 - .56
Terpinyl propionate, dms. .....lb. 1.70 - —
Terra alba (see Gypsum).
Testosterone, USP, bots. ....gram. No prices.
Testosterone propionate, USP, bots. gram. No prices.
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works..... lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 - —
dms., l.c.l., dlvd. E ..... lb. .61½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E..... lb. .55 - —
tanks, dlvd. E..... lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or l.t.l., works..... lb. .37 - —
tanks, works ..... lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., l.c.l., Memphis, Tenn lb. .32½- —
dms., c.l., t.l., Newark, N.J. lb. .33½- —
dms., l.c.l., Newark, N.J..... lb. .34½- —
tanks, dlvd. E. of Denver..... lb. .31 - —
tanks, dlvd. W. of Denver..... lb. .32 - —

Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E..lb. .39 - —
l.c.l., l.t.l., same basis..... lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd ..... lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works..lb. 4.40 - 5.50
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works..lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt. alld kilo.36.00 - —
USP, ampule grade, fib., dms., frt. alld kilo.38.00 - —
Thiamine mononitrate, USP, fib. dms., frt. alld kilo.36.00 - —
Thiocarbanilide, dms., ton lots..lb. .72 - —
dms., less ton lots..... lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works.lb. 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis..lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis.... lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 - —
dl-Threonine, bots., 1-kilo lots..kilo.275.00 - —
Thyme leaves, French, triple sifted extra, bgs..lb. .38 - —
Spanish, extra, bgs..... lb. .11 - —
triple sifted, bgs. ..... lb. .25 - —
Spanish, bgs. ..... lb. .09 - —
Thyme oil, NF, red, cns., dms....lb. 1.80 - 3.00
NF, white, cns ..... lb. 2.10 - 3.20
Tech., white, cns. ..... lb. .40 - 1.85
Thymol, fib. dms., 25-lbs., f.o.b. works lb. 3.06 - —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works..lb. 7.40 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits) ..... lb. 1.02 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd..lb. .25½- —
bgs., l.c.l., dlvd. .. ..lb. .26½- —
reg., bgs., c.l., dlvd. .....lb. .25½- —
bgs., l.c.l., dlvd. .....lb. .26½- —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.ton.180.00 - —
bgs., 5-ton lots, Niagara Falls, N. Y....ton.205.00 - —
bgs., ton lots, same basis. ton.215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E..lb. .27½- —
bgs., l.c.l., dlvd. E ..... lb. .28½- —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd..lb. .09¾- —
bgs., l.c.l., works..... lb. .09¾- —
50% Ti O_2, high-tinting, dms., c.l., lb. .14¾- —
dms., l.c.l. ..... lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .25 - —
dms., l.c.l., works..... lb. .27½- .29
tanks, works ..... lb. .20 - —
Tobias acid, dms., c.l., t.l. ..... lb. .78 - —
dms., l.c.l. ..... lb. .81 - —
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo.67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo.109.00 - —
dl-a-Tocopherol, bots. ..... kilo.99.00 - —
dl-a-Tocopheryl acetate, bots kilo.90.00 - —
25% dry, powd., bots ..... kilo.22.50 -24.00
33% dry, powd., bots. ..... kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb. 1.55 - —
Paste, kgs., 100% basis .....lb. 1.50 - —

TOLUOL
Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine, hydrochloride paste, kgs., 100% basis lb. 1.50 - —
Tolu balsam, cns. ..... lb. 3.50 - 3.65

When it comes to

MINERAL ACIDS

SULFURIC ACID
Standard: 60° and 66° Baumé, 99% H_2SO_4
Diamond: 66° Baumé
Reagent, ACS

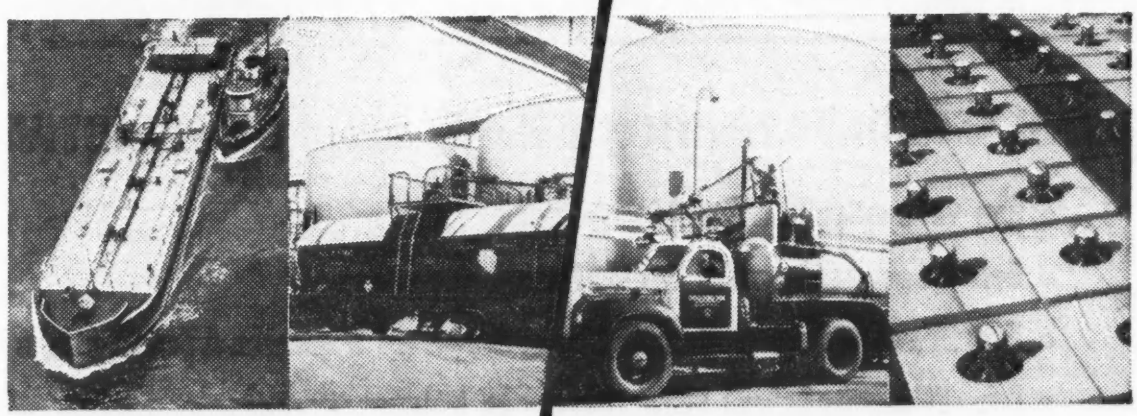
NITRIC ACID
Diamond: 36°, 38°, 40°, and 42° Baumé
Strong Nitric Acid, 95% and fuming grades
Photo-Engravers' Grade
Reagent, ACS

MURIATIC (Hydrochloric) ACID
18°, 20° and 22° Baumé, Standard, Diamond, Crystal and Reagent Grades

HYDROFLUORIC ACID
Anhydrous, Aqueous 70%, and Reagent

PHOSPHORIC ACID
Wet Process, 65% and 75%, Com'l and Fertilizer Grades
Food Grade, 75%
N.F., 85%

MIXED ACID
Varying proportions of Nitric and Sulfuric Acids to meet customers' requirements



Come to

GENERAL CHEMICAL

For 60 years, General Chemical has been the nation's primary producer of heavy acids. General has its own basic raw material sources. Its production facilities include 21* sulfuric plants, 4* hydrofluoric plants, 3 nitric and 3 muriatic acid plants. It operates one of the nation's largest fleets of tank cars, tank trucks and acid-carrying barges, and distributes from key points coast-to-coast. General's production, transportation, service and sales facilities are geared to meet your requirements best, both in quality of product and dependability of service. Write or phone today for information or service.

Basic to America's Progress

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

*In Canada: Allied Chemical Canada, Limited

Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25 • —
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies gal. .25 • —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 • —
dms., l.t.l., same basis lb. .63 • —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 • —
1,000-lb. or more, same basis lb. .18 • —
less than 1,000-lb., same basis lb. .23 • —
tanks, same basis lb. .14 • —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l. lb. .90 • —
dms., 125 lbs. to t.l. lb. 1.00 • —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 • —
dms., l.c.l., same basis lb. .84 • —
tanks, same basis lb. .82 • —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 • —
dms., l.c.l., same basis lb .31 • —
tanks, same basis lb. .28 • —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 • —
Cast, dms., frt. alld. lb. .45 • —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 • 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 • —
Light shades, kgs, works lb. 1.70 • —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 • —
Tonka beans, Angostura, cks. lb. 1.50 • —
Brazilian, Surinam, cs. lb. 1.30 • —
Totaquine, 100-oz. lots, cns. oz. .42 • —
Toxaphene, dms., c.l., t.l., works. lb. .22 • —
dms., l.c.l., l.t.l., works lb. .28 • —
Tragacanth gum, No. 1, ribbons, cs. lb. 4.10 • 4.20
No. 2, cs. lb. 3.75 • 3.80
No. 3, cs. lb. 3.40 • 3.65
USP, powd., bbls. lb. 1.05 • 1.15
Triacetin dms., c.l., dlvd. E. of Rockies lb. .39 • —
dms., l.c.l., same basis lb. .40 • —
tanks, same basis lb. .37 • —
Triallylamine, dms., c.l., dlvd. lb. .985 • —
dms., l.c.l., dlvd. lb. .995 • —
tanks, dlvd. lb. .96 • —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld. E. of Denver lb. .40 • —
Tributyl phosphate, dms., c.l., works. lb. .52½- —
dms, l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 • —
Tributylamine dms., c.l., works. lb. .67½- —
dms., l.c.l., same basis lb. .69 • —
tanks, same basis lb. .65 • —
Tributyrin, dms., l.c.l., dlvd. lb. .69 • —
Trichloroacetic acid, 300 lb. dms., c.l. lb. .52 • —
Trichlorobenzene, dms., c.l., frt. alld. E. lb. .15 • —
dms., l.c.l., frt. alld. E. lb. .16 • —
tanks, frt. alld. E. lb. .13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼- —
dms, l.c.l., dlvd. lb. .16¼- —
tanks, dlvd. lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½- —
dms., l.c.l., dlvd. E. lb. .14¼- —
tanks, works lb. .11½- —
Trichloroethylene, dms., c.l., or t.l., dlvd lb. .14 • —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .12¾- —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 • —
dms., l.c.l., same basis lb. .75 • —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted. lb. 1.40 • 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 • —
dms., l.c.l., dlvd. lb. .36 • —
tanks, dlvd. lb. .32½- —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .34½- —
dms., l.c.l., dlvd lb. .35½- —
tanks, dlvd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E. lb. .26½- —
dms., l.c.l., dlvd. E. lb. .28 • —
tanks, dlvd. E. lb. .24 • —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½- —
dms., l.c.l., same basis lb. .26 • —
tanks, same basis lb. .22 • —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld. lb. .25½- —
dms., l.t.l., frt. alld. lb. .26½- —
tanks, frt. alld. lb. .24½- —
Triethylamine, dms., c.l., dlvd. E. lb. .50 • —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl nitrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks, frt. alld. E. of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .42 • —
tanks, dlvd. lb. .38 • —
Triethylene glycol, dms., c.l., dlvd. E. lb. .21 • —
dms., l.c.l., dlvd. E. lb. .22½- —
tanks, same basis lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E. lb. .51½- —
dms., l.c.l., dlvd. E. lb. .53 • —
tanks, dlvd. E lb. .49 • —
Triisobutylene, tanks, dlvd. lb. .08 • —
Tri-isopropanolamine, dms., c.l., dlvd. E. lb. .23¼- —
dms., l.c.l., dlvd. E. lb. .24¾- —
tanks, dlvd. E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 • .305
tanks, frt. equald, 100% basis. lb. .26 • —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35 • —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, 100% basis, frt. equald lb. .26 • —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .35 • —
dms., l.c.l., l.t.l., same basis lb. .36 • —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 • —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 • —
bgs., l.c.l., l.t.l., dlvd. E lb. .41 • —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½- —
bbls., l.c.l., frt. equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 • —
Tripropylene, dms., c.l., dlvd. E gal. .44 • —
dms., l.c.l., same basis gal. .54 • —
tanks, same basis gal. .28 • —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½- —
dms., l.c.l., l.t.l., frt. alld. E lb. .22 • —
tankcars and compartmented tankcars; frt. alld. E lb. .17½- —
Tripropylene glycol, tankwagon and compartmented tankwagons, 1,000 gals. min. frt. alld. E lb. .18 • —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib., dms., works lb. 55.00 • —
Tung oil, dms., New York lb. .24¼- .23¼
tanks, imported, N. Y. lb. .22¾- —
tanks, domestic, mills lb. .22⅝- —
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 • —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.25 • —
dms., smaller lots, works lb. 2.45 • —
Turkey red, bbls., works lb. .62 • —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms. lb. .28 • .50
Tuscan red, bbls., frt. equald lb. .26 • .32
Tyrothricin, USP, 1 to 5 kilos gram. .54 • —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .30½- .35
Jobbing types, dry, bbls., same basis lb. .16 • .22¼
Regular types, dry bbls., same basis lb. .16 • .37½
Ultramarine blue prices 1c. higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs., l.c.l., works lb. .07¾- .08
Umber pigment, burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .08¼- —
Raw, American, bgs., works lb. .07¾- .08¼
Turkey-type, bgs., works lb. .08½- .08¾
Undecylenic acid, dms. lb. 1.28 • —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E ton. 125.00 • —
bgs., l.c.l., dlvd. E. ex whse. ton. 145.00 • —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E ton. 103.00 • —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton. 120.00 • —
37 grade, tanks, same basis ton. 145.00 • —
Urethane, USP, dms., t.l., f.o.b., works lb. .65 • —
dms., l.t.l., same basis lb. .70 • —
Uva-ursi leaves, bls lb. .12 • —

V

Valerian root, Belgian bgs. lb. .32 • —
Indian, bgs. lb. .25 • —
dl-Valine, dms., works lb. 21.00 -27.50
Vanadium pentoxide, tech., dms., works lb. 1.38 • —
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins lb. 10.75 • —
Mexican cuts, tins lb. 11.00 • —
whole, tins lb. 12.00 • —
Vanillin ex lignin, 100-lb. fib. dms., 1,000-lb. lots or more lb. 3.00 • —
100-lb. fib. dms., 500-lb. lots lb. 3.10 • —
100-lb. fib. dms., cns. 100-lb. lots lb. 3.25 • 3.35
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 • —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns. lb. 17.25 -17.50
Haitian, cns. lb. 14.50 -15.50
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 • 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb. 5.55 • —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd. lb. .1810- —
55-gal. dms., l.c.l., dlvd. lb. .1960- —
tanks, dlvd. lb. .1560- —
tanktrucks less than 4,000 gal., dlvd. lb. .1610- —
Zone 2, 55-gal. dms., c.l., dlvd. lb. .1910- —
55-gal. dms., l.c.l., dlvd. lb. .2210- —
tanks, dlvd. lb. .1660- —
tanktrucks, less than 4,000 gals., dlvd. lb. .1710- —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 • —
Vinyl chloride monomer, tanks, works lb. .125 • —

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February 23, 1961

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bots., 75cc., hospitals.....bot. 1.56 • —
Vinyl ethyl ether tech. dms., c.l., works..lb. .29¼ • —
dms., l.c.l., works.....lb. .30 • —
tanks, works.....lb. .27¼ • —
Vinyl propionate monomer, dms., c.l., dlvd..lb. .49 • —
dms., l.c.l., same basis.....lb. .50 • —
tanks, same basis.....lb. .47 • —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works..lb. 1.20 • —
1 to 9 dms., works.....lb. 1.35 • —
tanks, works.....lb. 1.15 • —
Vinyltoluene, dms., c.l., f.o.b., works, lb. .16½ • —
dms., l.c.l., same basis .....lb. .18½ • —
tanks, f.o.b. dest. frt. prepaid..lb. .14 • —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½ • —
Virginia type red, bbls., works .lb. 1.40 • —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram .07¼ • —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.65.00 • —
325,000 units per gram, same basis kilo.43.88 • —
250,000 units per gram, same basis kilo.33.75 • —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .09½ • —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .09½ • —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.95.00 • —
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms gram. 1.14 • —
0.1% vitamin B_{12}, USP adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms..gram. 1.14 • —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity gram.85.00 • —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 .kilo.109.00 • —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo, dms., frt. alld. gram. .90 • —
0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms., frt. alld..gram. .90 • —
Vitamin C (see Ascorbic acid).
Vitamin D_2 (see Codliver and Fishliver oils, Calciferol and Viosterol).
Vitamin D_3 dry, 850,000 units per gram, kilo lots..kilo.42.50 • —
850,000 units per gram less than kilo lots..kilo.45.00 • —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root bark, bls. .....lb. 2.00 - 2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd..lb. 1.95 • —
dms., 25-49-lb. lots, New York or Chicago..lb. 2.05 • —
dms., 5-24-lb. lots, New York or Chicago..lb. 2.15 • —
Watchung-type reds., bbls.....lb. 1.95 • —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. ..gal.12.25 • —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls.....lb. .21 • .22
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works .lb. 5.50 • —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls..lb. .22 • —
Thin, rossed, bls.....lb. .22 Nom.
Wintergreen oil, USP nat. northern, cns..lb. 6.33 -17.50
USP, nat. southern cns .....lb. 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls .....lb. .16 - .17
Witch hazel leaves, bls. .....lb. .25 • —
Wollastonite fine bgs., c.l., works, ton.39.50 • —
bgs., l.c.l, ex whse.....ton.56.00 • —
Medium, bgs.. c.l., works....ton.27.00 • —
bgs., l.c.l., ex whse. .....ton.44.00 • —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs. .....lb. 2.50 • —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns .....lb. 4.75 - 5.00

X

Xylene coaltar, indust., tanks, works:
Bethlehem, Pa. .....gal. .29 • —
Birmingham dist. .....gal. .29 • —
Chicago dist. .....gal. .28½ • —
Cleveland dist. .....gal. .29 • —
Geneva, Utah.....gal. .29 • —
Johnstown, Pa. .....gal. .29 • —
Lackawanna, N. Y .....gal. .29½ • —
Xylene, coaltar, indust., tanks, works:
Lone Star, Tex. .....gal. .27 • —
Lorain, Ohio.....gal. .29 • —
Middletown, Ohio.....gal. .30 • —
Minnequa, Col. .....gal. .29 • —
Philadelphia dist. .....gal. .29 • —
Pittsburgh dist. .....gal. .29 • —
Sparrows Point, Md. ...gal. .29 • —
Terre Haute, Ind. .....gal .29 • —
Youngstown, Ohio .....gal. .29 • —
Xylene, petroleum, indust., tanks f.o.b. works:
Bayonne, N. J .....gal. .29 • —
Baytown, Tex. .....gal. .27 • —
Charleston, S. C. .....gal. .29 • —
Chicago, Ill .....gal. .28½ • —
Detroit, Mich., dlvd....gal. .27½ • .29
Houston, Tex. .....gal. .27 • —
Philadelphia, Pa. .....gal. .29 • —
Providence, R. I. .....gal. .30 • —
Sewell's Point, Va. ....gal. .26 • —
Wood River, Ill. .....gal. .28½ • —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif..lb. .25 • —
dms., l.c.l., f.o.b., Richmond, Calif..lb. .26 • —
tanks, frt. alld. .....lb. .23 • —

o-Xylene, dms., c.l., works.....lb. .08 • —
dms., l.c.l., works.....lb. .09 • —
tanks, works.....lb. .06 • .06½
p-Xylene, dms., c.l., works.....lb. .20 • —
dms., l.c.l., works.....lb. .21 • —
tanks, frt. alld. .....lb. .1645 • —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works lb. .23 • —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 • —
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis. lb. .40 • —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 • —
dms., l.c.l., same basis gal. 1.30 • —
tanks, same basis gal. 1.05 • —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis. gal. 1.35 • —
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis. gal. 1.40 • —
2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 • —
2,5-Xylilline, tech., dms., frt. alld. lb. 1.20 • —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works..lb. .39 • —
dms., l.c.l., same basis.....lb. .40 • —
tanks, same basis.....lb. .33 • —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. .....lb. 2.15 - 3.05
Yeast, brewers, debittered, USP XV, Saccharomyces, dlvd..lb. .27 • —
Yeast, brewers, primary, USP XV, 150 meg. B^1 per gram, 100-lb. dms..lb. .47 • —
USP XV, 270 meg., B_1 per gram, 100-lb. dms..lb. .52 • —
USP XV, 300 meg., B_1 per gram, 100-lb. dms..lb. .56 • —
USP XV, 900 meg., B_1 per gram, 100-lb. dms. ....lb. .60 • —
Torula, USP, dlvd. .....lb. .18 • —

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

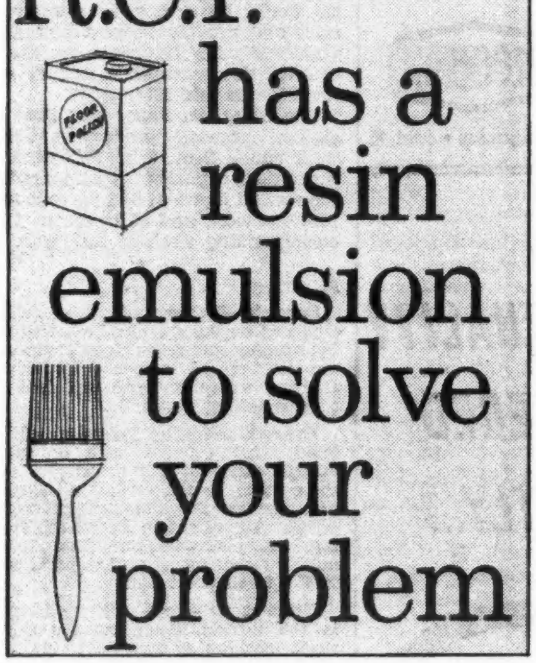
Yerba santa leaves, bls. .....lb. .40 - .45
Ylang-ylang oil, Bourbon, bots..lb. 7.00 -22.00
extra, bots. .....lb.24.00 -33.00
extra, bots. .....lb.24.00 -33.00
Yohimbine hydrochloride, bots., tins. oz. 3.75 - 4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb. lots or more, dlvd..lb. .343 • —
bgs., smaller lots, dlvd .....lb. .373 • —
Zinc acetate, NF, VIII, dms.....lb. .53 • —
Tech., dms., l.t.l., works.....lb. .29¾ • —
Zinc borate, bgs., 1,000 lbs or more, works..lb. .25 • —
bgs., less than 1,000 lbs., same basis..lb. .27 • —
Zinc chloride, NF, gran., dms...lb. .42 • —
NF, precip., powd., dms.....lb. .36 • —
Tech., soln., 50%, dms., c.l., works 100 lbs. 5.80 • —
dms., l.c.l., works 100 lbs. 6.40 • —
tanks, works .....100 lbs. 5.15 • —
fused, dms., c.l., works 100 lbs.10.70 • —
dms., l.c.l., works 100lbs.11.20 • —
gran., fib. dms., c.l., works. 100 lbs.11.45 • —
fib. dms., l.c.l., works 100 lbs.11.95 • —
Zinc chromate bbls., dlvd. ..... lb. .29 • —
Basic bbls., dlvd. ..... lb. .34 • —
Zinc cyanide, dms., 1,000-lb. lots or more, works lb. .53 • —
dms., smaller lots, works.....lb. .57 • —
Zinc dust coml. bbls., c.l., works. lb. .17 • —
Pigment, bbls., c.l., works....lb. .16½ • —
bbls., l.c.l., works .....lb. .18¼ • —
Zinc fluoride, bbls., works .....lb. .49 - .50
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½ • —
dms., l.c.l., frt. alld. .....lb. .23½ • —
Zinc metal prime western, slaus, E. St. Louis lb .13 • —
Prime western slabs, New York. lb. .13½ • —
Zinc naphthenate liq. 8% Zn., dms., frt. alld..lb. .27 • —
10% Zn., dms., frt. alld. .....lb. .33 • —
Zinc nitrate, tech., cryst., bbls., works lb. .20 • —

—Continued on page 43

R.C.I. has a resin emulsion to solve your problem



REICHHOLD offers an extremely diversified line of resin emulsions suitable for all the application areas discussed below. In addition, RCI has the production flexibility to tailor an emulsion to solve a specific application problem.

You can count on RCI for complete end-use data and helpful advice from a technical service staff with wide experience in this field.

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INDUSTRIAL SURFACE COATINGS – Air dry or bake metal primers and finishes can be based on 1505 SYNTHEMUL alkyd emulsion. Used in conjunction with 3560 SUPER-BECKAMINE, a melamine resin, a high-quality industrial baking finish is obtained completely free of the flammability hazard. Floor paints based on 9307 WALLPOL offer high performance with particularly good abrasion resistance.

FLOOR POLISHES – RCI acrylate ester copolymer, 9431 SYNTHEMUL, is a fine particle size emulsion designed for the formulation of floor polishes with excellent gloss, clarity, and tough, long-lasting wearability. 9425 SYNTHEMUL is a similar material, somewhat softer and with better water resistance for the formulation of buffable floor polishes for industrial use. As a companion material, RCI offers 1582 WATEREZ, an alkali soluble resin which contributes excellent leveling and depth of gloss to SYNTHEMUL floor polishes.

LEATHER FINISHES – SYNTHEMUL acrylate copolymer emulsions 9401 (hard) and 9402 (soft) can be blended by the formulator of leather finishes to obtain optimum properties of low temperature flexibility, freedom from surface tack, abrasion resistance, penetration and gloss.

TEXTILES – A vinyl acetate polymer, 9350 LV PLYAMUL, is useful to the textile industry in the formulation of semi-permanent finishes (non-chlorine-retentive and non-yellowing) that impart a crisp, firm hand to fabrics. 9350 LV PLYAMUL also finds application as a binder for non-woven fabrics. 9401 and 9402 SYNTHEMUL, extremely fine particle size acrylate ester copolymers, are used as anti-crock and finishing agents. The latter, when used in finishes in conjunction with 3560 SUPER-BECKAMINE, contributes to improved dry cleaning and crease retention properties. 1530 and 1535 SYNTHEMULS are emulsifiable alkyds with excellent stability and pigment binding properties especially developed for the water-in-oil pigment printing of textiles.

PAPER COATINGS – RCI WALLPOL vinyl acetate polymers and copolymers have excellent properties for the production of clear paper coatings where greaseproof and waterproof characteristics are desired. 9401 and 9402 SYNTHEMUL acrylate copolymers have superior binding properties for pigmented and metallic paper finishes.

ADHESIVES – The broad RCI line of vinyl acetate polymers may be used alone or with plasticizers, starches, dextrines and fillers. 9350 LV and HV, 9360 and 9370 PLYAMUL are offered for professional compounding of adhesives with a wide range of end uses. 9159 PLYAMUL is a general-purpose adhesive for many varied applications, including paper converting; in woodworking, it permits quick setting with minimum clamping requirements and gives exceptional bond strength.

CEMENT ADDITIVE – Cement manufacturers should investigate the unique properties of RCI 9155 PLYAMUL. Added to cement, this modified PVAc emulsion improves bond to old masonry and to steel; permits featheredging on concrete patches; improves toughness and resilience; minimizes need for damp curing and improves tensile and compressive strength.

Contact Reichhold for technical information and for in-plant technical service on RCI Resin Emulsions. We are ready to help you select the emulsions which are best suited to your product requirements. If need be, we will work with you to develop an exclusive emulsion product for you.

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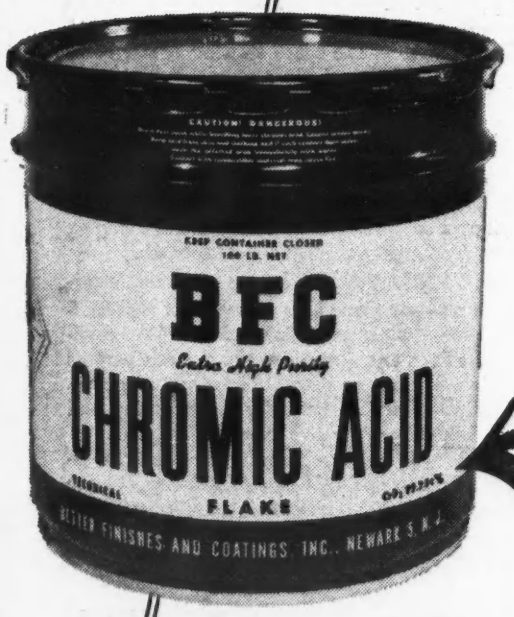

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Heavy Chemicals

A tight spot, confirmation of a couple of price changes, the few, usual soft areas in price listings, and some desultory comments from the trade on the state of business generally comprise the few rather dim highlights in this week's heavy chemicals market. Soap makers who are stepping up their requirements of sodium sulfate, the tight item, right now, find that producers are able to eke out some extra material for them, but those in the spot market find the going rough with scant prospect of quick improvement.

Price advances in magnesium chloride and potassium bromate are already in effect on spot and will hit contracts October 1. The boosts reflect higher costs of labor and raw materials.

From sulfur producers comes word that the presently prosperous condition of the business imparts a steady tone to price listings, but that due to competitive conditions, the price discounts available at some shipping points are still in effect.

Similarly, sulfuric acid remains shaded on the East Coast, but in spite of the poor steel business, the shading has not spread or deepened.

While the golden sixties may not turn out to be fool's gold after all, one trade source said, neither has the bright promise plighted last year shown any signs of coming to fulfillment. He said he would be happy to see chemical sales and production post just a marginal gain for 1960. But he also discounted the pessimistic talk of a real recession in mid-1961.

The American Paper and Pulp Association reported production for the week ended Sept. 3, at 91.7 percent of theoretical capacity, as compared with the revised figure of 94.3 percent for the previous week and 96.2 percent for the corresponding week of last year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
106.81	106.81	106.81	107.13

For Current Prices see Page 10

Acids

Chromic—Makers of this acid are crouched on the starting line, waiting for the opening gun from Detroit announcing the start-up of new-model production, carrying in its wake increased demand for chrome-plating materials.

Hydrochloric—The paradox of moribund steel coupled with a sprightly enough dance at the consuming end of the economy is reflected in a mixed business picture for the hydrochloric acid market. Movement to Pittsburgh is choking, but absorption by food-processing outlets maintains a record pace, sources in the trade point out.

Hydrofluoric—Positively nothing new in the market, trade sources said last week, cocking a wary eye toward the aluminum industry, where production runs on apace, absorbing substantial quantities of HF, but with a noteworthy increase in producers' stocks of the light metal.

Nitric — Stainless steel operations, strangely active amidst the otherwise desolate state of the steel industry, has filled the breach in the nitric acid market caused by fertilizer's seasonal inactivity.

Sulfuric—Contemplating the steel picture, with its unfortunate effect on sulfuric acid sales, observers are happy to note the steady price picture of the acid, shaded where shaded before, but no more darkly, and steady where previously steady.

American Iron & Steel Institute reports steel production for the week just ended at 1,441,000 net tons or 50.6 percent of capacity, which if correct, would be a not insignificant decline—coming at this time of the year—from the previous week's actual total of 1,483,000 tons, or 52 percent of capacity.

For perspective, the Institute notes production a month earlier running at 1,525,000 tons for the week; but a year ago, when the Great Strike was in progress, it totaled 327,000 tons for the week.

Bases and Salts

Caustic Soda—With soapers back in the saddle, joining paper makers, who have ridden hard all summer, the caustic soda market picture has begun to brighten, sources in the trade report.

Turning to broader matters, market observers are saying that while the golden sixties may not turn out to be fool's gold, neither has the bright promise plighted last year shown any signs of coming to fulfillment. These observers now will be happy to see chemical production and sales post just a marginal gain for 1960.

Chlorine—By and large chlorine has been running a little harder than caustic this summer, but not too hard at that, say trade sources.

Lead Dioxide—This material was advanced in price on September 1. New quotations are 65c. a pound for 25-pound fiberboard boxes, 55c. for less than 2,000 pounds packed in 200-pound fiber drums, and 50c. for quantities of over 2,000 pounds. There were no changes in f.o.b. points.

Magnesium Chloride—Contract prices will be moved by 25c. to 52c. a hundredweight on October 1 in line with an advance that it already effective on spot. OPD's prices will continue to carry the old prices until that date, as the great bulk of business is done on contract. The boosts reflect higher costs of production.

Potassium Bromate—This item will be moved up October 1 on contract 1½c. across the board. The advance is already effective on spot.

New prices in 200-pound drums are 49c. a pound for carloads, 51½c. a pound for less carloads of 1,000 pounds or more, and 56½c. for 200 to 800 pound shipments. For 25-pound drums, quotations are 53½c. for 1,000 pounds or more, 58½c. for 200 to 975 pounds, and 63½c. for less.

Soda Ash—Flat glass shipments into the US in the first six months of 1960 totaled $26.5 million, a drop of 22.3 percent from the comparable period of last year, Business & Defense Services Administration reports.

Despite the decrease, shipments were still 4.1 percent better than the level of 1956, and 81.4 percent above 1958, the service notes.

Although its shipments dropped, Belgium remained the biggest supplier to this market. Japanese sales here increased slightly. Details are available in a report from the Commerce Department in Washington.

Sodium Sulfate—Busy soap makers are putting added pressure on this market where supplies have been on the snug side of balance for quite some time. Customers already under contract are getting their needs supplied, but producers, albeit reluctantly, are turning down or deferring new orders. Spot lots are scarce to the vanishing point, sources in the trade point out.

Nonferrous Metals

Antimony—Primary antimony production by domestic smelters in the second quarter increased 11 percent over the first quarter, Bureau of Mines reports. Most of the increased output was metal and byproduct antimonial lead.

Consumers used some 3,300 tons of primary metal in the second quarter as compared with 3,400 tons in the first. About 45 percent of the antimony used was in oxide, 43 percent was metal, and the remaining 12 percent was antimony ore used directly in end products, sulfide, residues and byproduct antimonial lead, Mines notes.

Manufacture of metal products accounted for 56 percent of the antimony consumed, while 44 percent went into nonmetallic products.

Greater domestic output and lower consumption raised industry stocks 7 percent during the quarter, the Bureau reports, noting that most of the increase was in ore and concentrates and oxide.

Chromite—Chromite consumption continued to wane in June, declining 16 per-

Heavy Chemicals

cent from the preceding month, the Mines Bureau reports.

The metallurgical industry consumed 44,154 tons of chromite in producing 16,250 tons of chromium ferroalloys and chromium metal, while 1,071 tons went directly to steel. Of that total, 41,525 tons were metallurgical grade ore, 1,767 chemical grade, and 862 tons refractory grade.

Chromite consumed in producing refractories totaled 30,710 tons; 811 tons were used in furnace repairs. The chemical industry used 15,008 to produce 10,803 short tons of chemicals, on a basis of sodium bichromate equivalence.

Stocks held at the end of the month by chemical makers totaled 25,353 tons, bichromate equivalence.

Copper—New supply of refined copper in June totaled 176,000 tons, exceeding domestic and export needs by about 15,000 tons, Business & Defense Services Administration reports.

Production of refined copper from primary sources in June rose to 144,000 tons, only one percent below the all-time monthly high reached in April this year. June output of secondary materials, at 25,000 tons, was 14 percent above the preceding month, while imports of refined copper were unchanged at 7,000 tons, BDSA notes.

Consumption of copper-base raw materials by mills and foundries, though still below the level of last year, improved somewhat during the month, BDSA points out. Wire mills consumed 74,000 tons of refined copper, six percent above May. Brass mill consumption of 44,000 tons of refined copper and 26,000 tons of copper-base scrap were 2 and 18 percent, respectively, above the preceding month. Foundries and other consumers used 7 percent more scrap in June than in May.

Total exports of refined copper fell to 39,000 tons in June from 51,000 in May, due chiefly to reduced shipments to West Germany and France, BDSA reports.

Despite the sharp drop, average monthly shipments to West Germany in the first half of 1960 were more than double those of 1959 as a whole, and 34 percent above the average for 1958.

On the other hand, the government agency goes on to say, average exports to France in 1960 were only five percent above the monthly average for 1959 and less than half that in 1958. Shipments to Japan continued upward, averaging 3,100 tons a month during 1960, seven times greater than the average for 1959 and quadruple that of 1958.

Mercury—Prices were held at a range of $209 to $212 a flask, for large lots, prompt shipment; in a lackadaisical market.

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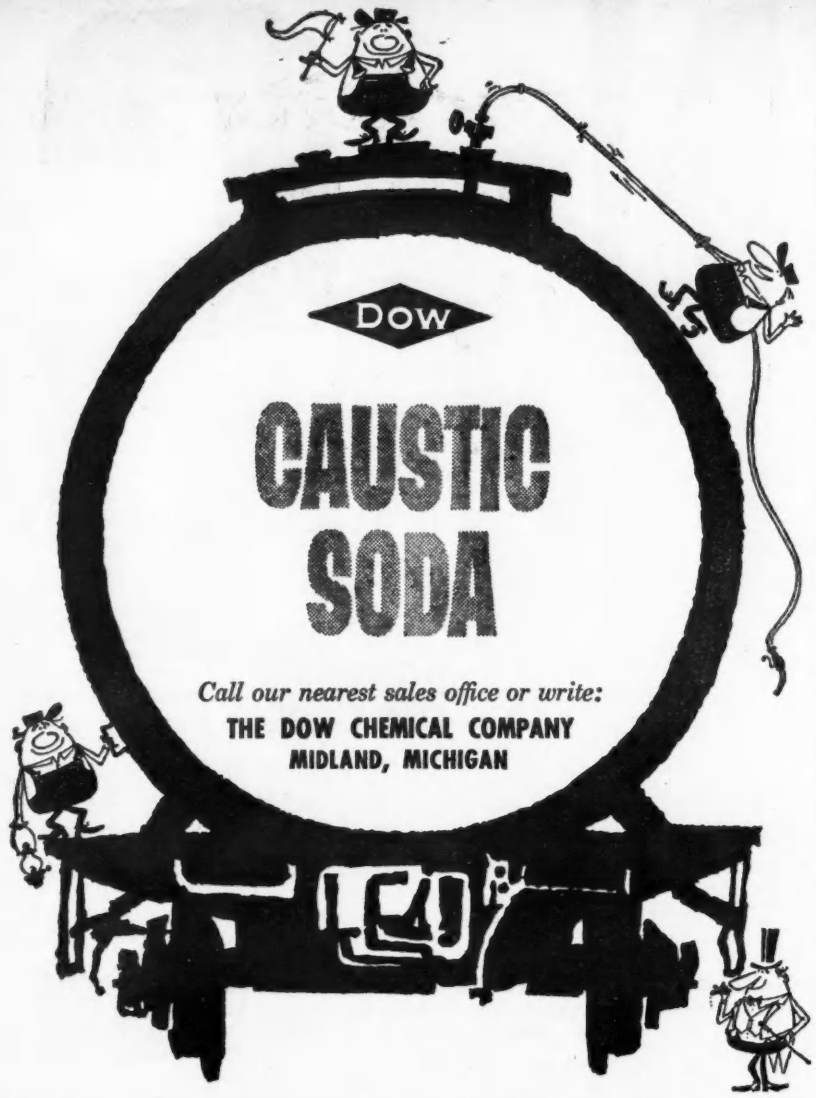

Republic Files For Patents On Copper Sulfate Processes

Republic Chemical Corporation, New York, has filed for patents on fourteen new applications of copper sulfate, which Republic says may double consumption of the chemical in the US.

Laboratory and pilot plant tests are said to have brought spectacular results when copper sulfate was used in the treatment of natural asphalts, bituminous materials whether derived from petroleum or shale oil, lignite tars and coaltars and their residues, petroleum resins, propane resins, mid-continent flux, crude tall oil and pitch, stearine pitch, residues from wood tars, cottonseed pitches and similar materials.

Use of the chemical is said to cause increased formation of desirable high-molecular weight asphaltenes. This reportedly makes for unusually high fluidity of asphalt at elevated temperatures and very desirable non-brittle rubber-plastic qualities at low and freezing temperatures.

Processes and licenses will be made available to producers, consumers and other interested parties, Republic reports.

Philadelphia Quartz Offering New Silicas

Philadelphia Quartz Company recently started commercial production of its line of micro fine precipitated silicas. The silicas, trademarked "Quso," are produced by an exclusive process for which a patent application has been made.

Suggested applications are as flatting and bodying agents, as insecticides, for reinforcing fillers, as anti-caking and bulking aids, as anti-slip and separating agents, for thermal insulation and as absorbants.

Packaging is in multiwall moisture-resistant paper bags of twenty-five pounds net, with prices ranging from 55 cents a pound for minimum lots of 10,000 pounds to 70 cents a pound for lots of 200 to 575 pounds.

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Military May Go Abroad

—Continued from page 3

to enact a patent law on pharmaceuticals and its effect on the American industry. He said that as a result there is a "nest of pirates operating in Italy" who do not hesitate to appropriate any American discovery for themselves and who even now through advertisements in the industry press are urging American technicians to sell them information of drug processes.

"And we are now finding our own medical procurement agency condoning this," he said.

"As far as I am concerned, the Italian pharmaceutical industry is the most distasteful of bedfellows, and as a matter of public policy the US government should do something about this situation."

Lederle Pricing Practices Defended

In earlier testimony, Dr. Malcolm and Mr. Duncan attempted to defend Lederle's pricing practices against committee inferences of price gouging, based on evidence that prices of the several competing broad-spectrum antibiotics had remained unchanged at $5.10 for sixteen capsules of 250 milligrams each for ten years. All of the leading broad spectrum-antibiotics are patented products, the Kefauver committee has noted.

Mr. Duncan argued that the prices of broad-spectrum since October, 1951, reflect the limit to which they declined as a result of keen competition between the manufacturers involved. After four reductions from 1948 to 1951, he said, the published price dropped to one-third of the initial price of "Aureomycin," a Lederle product.

"Lederle had to stop somewhere," he said. "The price had declined to a point where it was well within the reach even of the needy.

"In the face of rising costs Lederle saw no point in cutting the price further, except to meet competition. Recently we reduced broad-spectrum prices by 15 percent to retailers in order to meet similar reductions made by certain competitors."

Lederle's products are fair-traded and Mr. Duncan admitted that the fair trade price has not been reduced yet. He indicated that this matter was under consideration by the company at the present time.

Competitive Factor in Pricing Cited

"I have nothing to do with other companies' prices," he said. "Hence, I do not know their reasons for charging the same price as Lederle. But in a product as competitive as the broad-spectrums I am sure that if they charged more than Lederle we would take business away from them and vice-versa.

"Where there is vigorous competition between articles performing the same function, it is not unusual to find identical prices. This is why prices of many competing drugs, just like the prices of gasoline at the local filling station, are identical."

Mr. Duncan explained that there is a limit to the amount by which the price of any particular drug can be reduced, just as there is a limit to the amount by which the cost of making it and selling it can be reduced.

Lederle felt it had reached these limits in 1951 and that its price of $5.10 was fair and reasonable, he added. Since then costs have risen, which have more than offset improvements in efficiency and yields for the drug, he said, but Lederle has held the line against any increases.

Dr. Malcolm pointed out to the committee that the price of antibiotics manufactured by Lederle dropped 66 percent between 1948 and 1958 in contrast with prices of other essentials such as milk, shoes and gasoline, which rose between 20 and 26 percent.

Research Costs, Product Obsolescence

He emphasized the heavy expenditures on research and the rapid product obsolesence in the drug industry. Lederle spent $12.5 million in thirteen years in an effort to find an effective live virus oral polio vaccine, but today has no product on the market, he said.

The company plans to manufacture the strain just approved by the Public Health Service, he added, but will continue to work its own Lederle-Cox vaccine.

The high rate of product obsolescence in the drug industry, he told the committee, is exemplified by the fact that Lederle expects nearly two-thirds of its sales five years from now to come from products not on the market in 1959.

To justify such risks, Dr. Malcolm maintained Lederle has endeavored to achieve an overall profit margin of 12 to 15 percent on net sales after taxes.

A chart placed in the hearing record by the committee showed that for the three years 1957-59 Lederle's profits ranged between 16 percent and 17.7 percent.

Chairman Estes Kefauver of Tennessee noted that these profits were "way above

—Continued on next page

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your target" and wondered why Lederle could not afford to reduce prices to benefit the consumers. He said that Lederle stands sixth in the list of 500 largest companies in terms of the percent of profit on sales.

Dr. Malcolm insisted that the very nature of the drug industry, with its many risks of failures in research and rapid product obsolescence, makes it very essential to have a high rate of return for planning.

Sen Everett Dirksen of Illinois chided Sen. Kefauver for questioning Dr. Malcolm as to "why you must make so much money."

"That should give you some clue as to what some people may have in mind—profits control," he remarked.

Sen. Kefauver promptly denied the accusation. He said that he did not favor price control, but he thought that the committee had a duty to perform in seeking lower drug prices.

Opened on Partisan Wrangle

The hearings opened on a partisan wrangle when Sen. Dirksen and Sen. Roman L. Hruska of Nebraska challenged Chairman Kefauver on a memorandum he had prepared, announcing his intention to rule on questions of confidentiality of certain information obtained from antibiotics producers, which the staff proposes to place in the hearing record.

Sens. Dirksen and Hruska argued that these were matters to be decided only in an executive session of the subcommitee and, with the third Republican present, Sen. Alexander Wiley of Wisconsin, moved to have the question referred to the full judiciary committee for decision.

Chairman Kefauver saw that he would be outvoted, since he was the only Democrat present at the time and quickly sidestepped the showdown by ruling that the motion was out of order.

Dr. Philip I. Bowman, president of Bristol Laboratories, a division of Bristol-Myers Company, New York, took a sharp exception to Sen. Kefauver's assertions that antibiotics prices and profits are too high. He revealed that Bristol's research expenditures in 1959 represented over 16 percent of sales while profits were only 8.4 percent of domestic sales.

The witness described patents as "a small firm's—and the public's—best friends" asserting that the trademark and patent system must be kept strong or approximately 1,275 small ethical drug firms will have little chance to grow and the bigger firms will get bigger.

Dr. Bowman called attention to the fact that antibiotics—with few exceptions—have come from American research, and estimated that major antibiotics have emerged with a frequency of one for every $20 million of industry's research expenditure.

He expressed the opinion that without effective patent protection, new antibiotics research—with its promise of even greater miracle drugs in the future—would dry up because no firm would dare gamble this kind of money without the possibility of recouping its investment.

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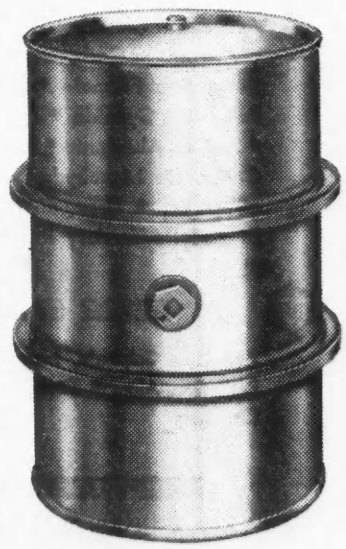

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Current Market Quotations

—Continued from page 39

Zinc oxide, pigment, American process, lead-free bgs., c.l., frt. alld. lb.	.14½-	—
bgs., l.c.l., 10 tons or more, same basis lb.	.15 -	—
bgs., l.c.l., smaller lots, same basis lb.	.15½-	—
Zinc oxide, leaded, 35% bgs., c.l., mills, frt. alld. lb.	.15⅝-	—
bgs., l.c.l., 10 tons or more, same basis lb.	.15⅞-	—
50%, bgs., c.l., same basis lb.	.15¾-	—
pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis. lb.	.16¼-	—
USP, gran., dms. lb.	.26 -	—
French process, green seal, bgs., c.l., mills, frt alld lb.	.16¼-	—
bgs., l.c.l., 10 tons or more, same basis lb.	16¾-	—
bgs., l.c.l, smaller lots, same basis lb.	.17¼-	—
red seal, bgs., c.l., same basis. lb.	.15¾-	—
bgs., l.c.l., 10 tons or more, same basis lb.	.16¼-	—
bgs., l.c.l, smaller lots, same basis lb.	16¾-	—
white seal, bgs., c.l., same basis lb	.16¾-	—
bgs., l.c.l., 10 tons or more, same basis lb	.17¼-	—
bgs., l.c.l., smaller lots, same basis lb	.17¾-	—
Zinc oxide, USP dms., c.l., frt. alld. lb.	.18¼-	—
dms., l.c.l., 10 tons or more, same basis lb	.18¾-	—
dms., l.c.l., smaller lots, same basis lb.	.19¼-	—
Zinc phenolsulfonate, NF, gran., dms. lb.	.45 -	.46
NF, powd., dms. lb.	.48 -	.49
Zinc resinate, precip, 7.2-7.6% Zn., dms., frt. alld lb.	.40¼-	—
Zinc silicofluoride, dms., works lb.	.12½-	.14
Zinc stearate, tech., USP, ctns., c.l. lb.	.41 -	—
ctns., l.c.l. lb.	.42 -	.46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd.E. 100 lbs.	8.75 -	—
bgs., l.c.l., dlvd. E 100 lbs.	9.75 -	—
Zinc sulfate in bbls 40c. higher.		
Zinc sulfide, pure, bgs., c.l., dlvd lb.	.2530-	—
Zinc undecylenate, dms. lb.	2.00 -	—
Zinc, yellow (see Zinc chromate).		
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.	10.25 -	—
bbls., c.l., works 100 lbs.	10.85 -	—
bbls., l.c.l., works 100 lbs.	11.35 -	—
Zinc formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld lb.	.26 -	—
Normal, 250-lb. dms., frt. alld lb.	.52 -	—
Zircon (G) gran., bgs., c.l., works. lb.	.03¼-	—
bgs., 5 tons to c.l., works lb.	.03⅜-	—
bgs., 1 ton to 9,999-lb. lots, works lb.	.04 -	—
bgs., smaller lots, works lb.	.06½-	—
Zircon (G), milled, bgs., c.l., works. lb.	.04⅛-	—
bgs., 5 tons to c.l., works lb.	.04⅜-	—
bgs., 1 ton to 9,999-lb. lots, works lb.	.04⅝-	—
bgs., 500-1,999-lb. lots, works lb.	.07½-	—
Zircon (G) in barrels 1c. higher.		
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works lb.	.23 -	—
Zirconium hydride, powd., electronic grade, dms., works lb.	14.00	-15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works lb.	1.50 -	—
Electric-fused lump, bgs., 500 to 1,999-lb. lots, works lb.	.48½-	—
bgs., smaller lots, works lb.	.51 -	—
milled, bgs., c.l., works lb.	.52 -	—
bgs., 5-ton lots, works lb.	.62½-	—
bgs., 1-ton to 9,999-lb. lots, works lb.	.63½-	—
bgs., 500 to 1,999-lb. lots, works lb.	.64 -	—
bgs., smaller lots, works lb.	.66 -	—
Zirconium Oxide, Glass polishing grade, 94-97% ZrO_2, bgs., works lb.	.55 -	.65
Opacifier grade, 85-90% ZrO_2, bgs., lb.	.27 -	.50
Stabilized oxide, 91% ZrO_2, milled, bgs. lb.	.62 -	.85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works lb.	.37½-	—
bgs., l.c.l., smaller lots, same basis lb.	.16⅝-	—

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Chloroform Cream of Tartar Ferric Sulfate
Greases Hydrogen Animal Glues
Hydrogen Chloride Mesyl Chloride
Methylene Chloride Oleum Perchlorethylene
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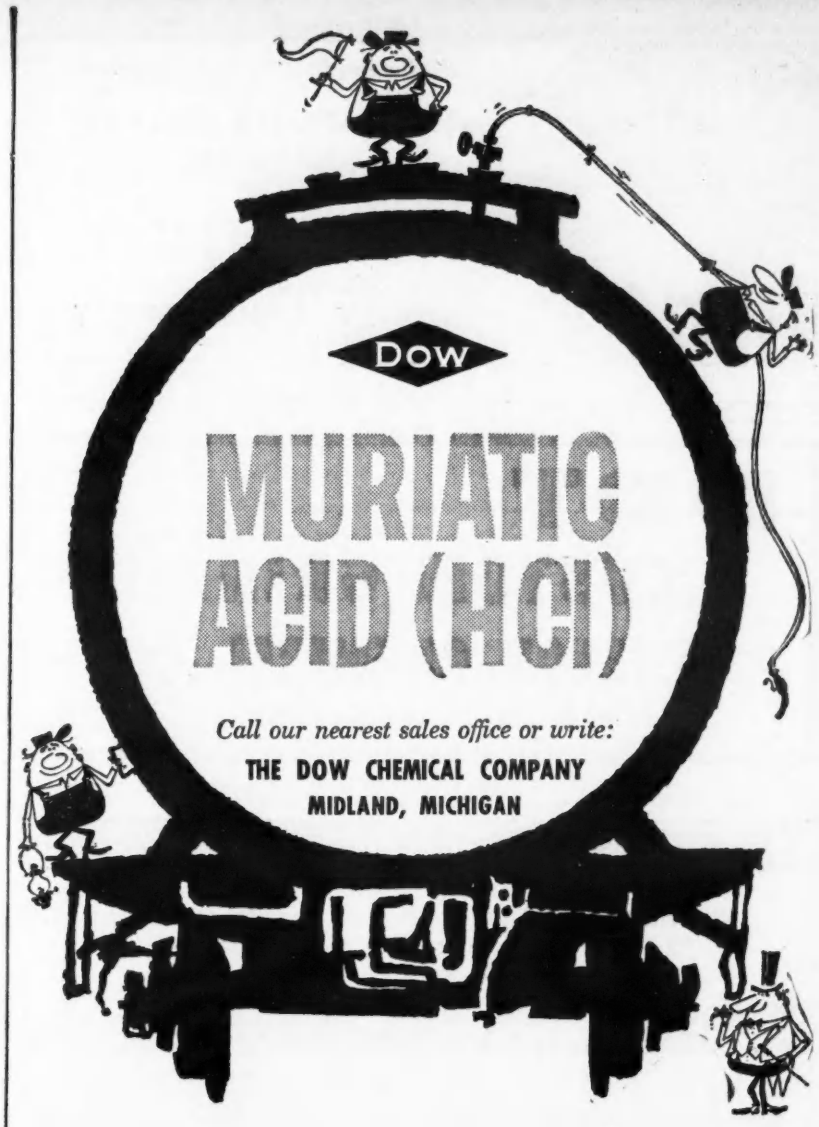

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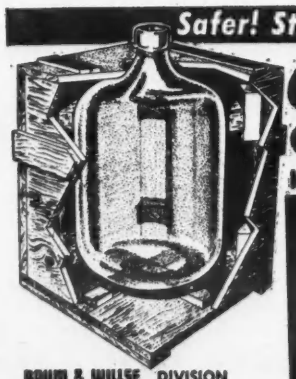

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Agricultural Chemicals

Defoliation programs have begun on the cotton crop in the South, boosting demand for the defoliants. With dry weather predominating in the Mississippi delta, the liquid defoliants are enjoying sustained demand. Dry defoliants need moisture for greatest effectiveness, preferable heavy dew, and the absence of moisture in the Cotton South has cut into the demand for this type of defoliant. The crop this year is reported to be about normal, and the dry defoliant producers feel this year will not be up to the volume attained in previous years.

While listings for fishmeal and scrap continue to be off from their usual listing of over $100, the general tone of the market is reported to be improving. Latest quotes are still in the range of $92 per ton, but sources report that a possibility of some strengthening in prices may be in the cards. The pivotal point in the market shift will depend on the events now shaping up in Peru. The Peruvian fishmeal industry has recently run into some supply problems that may boost lagging prices. Peruvian fishmeal has been underselling its US domestic equivalent by as much as $20 per ton. Since, Peruvian fishmeal represents about a third of US imports of fishmeal. and any change in price there affects the US domestic market.

According to trade sources, The Peruvian fishing season has ended, with the catch this year at below normal levels. Complicating matters further, ships have arrived prematurely to take on shipments of the fishmeal. The result has been a squeeze placed on existing supplies. It would seem that immediate shipments will probably not be affected. The affect on later shipments, about the beginning of 1961, being in doubt.

India, aiming for self-sufficiency in the production of nitrogenous fertilizer, is giving special emphasis to its third-five year agriculture plan. The production goal set for 1966 is 1 million tons in terms of nitrogen, a sizable jump from the 85,000 tons currently being produced.

One fertilizer plant, suitably located, is proposed for each of the 15 states. Seven of these, with a toal capacity of about 500,000 tons of nitrogen, are in various phases of construction, engineering, or negotiation. A gap of about 500,000 tons remains to be filled.

The new third year plan is relying on US private capital to fill the gap. Some Indian agents are reported to have begun discussions with US firms to set up fertilizer projects on a partnership basis.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
109.97	109.97	109.977	111.14

For Current Prices see Page 10

Animal and Plant Foods

Ammonia—The Census Bureau reports that production and shipments during the years 1955 through 1959 increased substantially each year. In 1955 production was reported at 3.251 million short tons, with shipments totaling 1.553 million pounds. For the next three years both production and shipments were increased by about 100,000 short tons annually. Last year, production hit 4,519,705 short tons, with shipments (including interplant transfers) reported at 2,087,891 short tons. Commercial shipments accounted for 1,664,502 short tons, and was valued at $116,286,000.

Ammonium Nitrate—Last year's production of fertilizer grade ammonium nitrate reached 2,634,871 short tons, which according to the Census Bureau was the best production year during the period 1955-1959. Output of ammonium nitrate, fertilizer grade, has been increasing yearly since 1955. Production that year was 1.8 million short tons, while in 1956, production was increased by about 50,000 short tons. In 1957, production was estimated at 2,338,576 short tons, with a 30,000 short ton increase registered in 1958.

While production of ammonium nitrate scored gains during the reported period, shipments seesawed from a low of 59,436 short tons in 1955, to a high of 138,556 short tons in 1957. Shipments of fertilizer grade ammonium nitrate in 1958 totaled 64,589 short tons, while shipments in 1959, representing the total was 108,625 short tons.

Ammonium Sulfate—The Indian Government is interested in purchasing 41,400 long tons of ammonium sulfate and 10,000 long tons of urea, according to the Foreign Commerce Weekly. Shipments should begin in early October and should be completed by November. US suppliers are required to quote in long tons, on a net weight basis, delivered f.o.b., showed port of exit, and must indicate maximum quantities they can supply. For details see 'Bids Wanted,' page 76.

Animal Proteins—Despite the lower listings for fishmeal and scrap, the general tone of the market is reported to be improving. Latest quotations for fishmeal are still in the range of $92 per ton, bagged, Atlantic and Gulf coasts, unchanged from last week. But marketing men feel an upturn in market conditions for fishmeal might result from the situation now forming in Peru.

The Peruvian fishmeal industry normally accounts for about a third of the total US fishmeal imports each year. The sizable quantity of Peruvian fishmeal has undersold domestic material by as much as $20 per ton. Now, the Peruvian industry is faced with reduced supplies brought about by the end of a poor fishing season there, and the earlier than usual arrival of ships to take on supplies. This is reported to have put a premium on existing stocks, which probably won't be felt until the first quarter of 1961.

Just when the firming of fishmeal listings will be felt, is still a matter for a crystal ball. Some see a immediate reaction on the US market, others hold that the improvement will be gradual, with the biggest gains starting with the end or the year.

Nitrogen Solutions—As reported by the Bureau of Census, the use and production of nitrogen solutions (100 percent N-mixtures containing two or more nitrogenous materials) during the period 1955-59 has been increased annually. Starting in 1955, when production was 468,595 short tons, and shipments amounted to 464,282 short tons. In 1957, production was 551,518 short tons, and shipments totaled 538,193 short tons. Last year, production was estimated at 779,745 short tons, with shipments at 749,118 short tons.

The value of shipments from plants went from $57 million in 1955 to $53 million the following year, the lowest in the five year period. In 1957, value of shipment started upward again, hitting $60 million, and was increased by $8 million in 1958. In 1959, the value of shipments was placed at $86 million, the highest value reported for the five-year period.

Pesticides

With the cotton crop nearing harvest, defoliation programs are beginning to get under way. Chemicals in use in this program, remove unwanted leaves from the plant thus keeping both the mechanical and hand pickers operating efficiently. The two basic types of defoliant are liquid or powder. To date the weather has favored the use of the liquid type. Liquid defoliant work best under minimum moisture conditions, and the dry weather in the Mississippi delta in the last month has sparked demand for this type of defoliant.

Producers of the dry defoliant anticipate to a less than average year for their products. Dry defoliant need moisture, preferable a heavy dew, to provide for effective usage.

Chlorate solutions, arsenic acid and other liquid defoliant demand are reported to well sustained. One producer reports that defoliant applications are now in progress in some of the Northern states, particiularly the beet crop in New York state.

DDT—As the season draws to a close, producers report market conditions on the quiet side with prices holding unchanged. With final tabulations still to be made, preliminary estimates indicate that this season will be in the plus column.

Aliphatic Organics

Quite a few people, we hear tell, are not particularly keen for either Republican Nixon or Democrat Kennedy. A similar lack of strong feeling also characterizes the current mood of a large segment of business, including the chemical sector we talk about here. This was apparent last week from conversations with trade people throughout diverse areas of the market. No one was flatly pessimistic or buoyantly optimistic; it was as if people found forecasting too perilous to attempt while steel output remained curiously low and the rest of industry fared moderately well.

Several trade members, in fact, remarked, as others have in the past, that despite the great wash of statistics that daily flood their desks, it is as difficult as ever to make a really sharp sales forecast. Complicating things still further, they added, is the lack of a pervasive trend and the confusion arising from the at-odds positions of the economists, including those with the several government agencies. Strangely enough, boom and bust have been predicted at regular intervals during the past few months—each time with an array of statistics in tow.

With the outlook so uncertain, it is doubtful that October 1 will bring much price activity. So far, no advances have been announced and with only three days to go before the fifteenth, the traditional cut-off date for informing customers of upcoming changes, it seems safe to say that stability generally can be expected.

There is some little talk about a hike in acetone prices—to return the schedule to levels in effect prior to the ½ cent a pound reduction posted in mid-June—but reliable sources doubt such a move is contemplated. Most logical reason why producers will stand pat is the competitive situation which extends to manufacturers of similarly-used solvents.

What may turn out to be the continuance of a trend that got its initial impetus in recession-ridden 1958 is the upping of less than carlot quotations, especially on "delivered" items, to compensate for the rising costs of handling and freight. This was done last fortnight by a major producer of oxalic acid, and prior to that by manufacturers of USP, 190- and 200-proof ethyl alcohol.

Down recently went prices for furfural (½ cent a pound on tankcar quantities) and vinyl acetate monomer (1.9 cents a pound across the board).

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
131.20	131.20	132.09	130.47

For Current Prices see Page 10

Acrylonitrile—Production of acrylonitrile reached 232,253,000 pounds in 1959, almost halfway to the anticipated peak of 500 million pounds in 1965. Compared with '58, the gain amounted to 52,547,000 pounds, according to Tariff Commission statistics.

Sales last year were up 33,757,000 pounds, to 192,091,000 pounds. Total value was $49,594,000. Average price: 26c. per pound.

Amines—As a group, the amines took a giant step forward in 1959. Production was up almost 100 million pounds to 345,436,000, while open market sales went from 67,692,000, valued at $27,197,000 (40c. a pound) to 85,527,000, valued at $33,235,000 (39c. a pound).

Of the methylamines, dimethylamine was the largest in terms of volume. Output was 27,786,000 pounds—versus 23,508,000 in 1958—with sales accounting for approximately half of the total or 13,395,000 pounds, valued at $3,619,000 (27c. a pound). This compares with 1958 sales of 10,946,000 pounds, valued at $3,106,000 (28c. a pound).

Production of trimethylamine showed little change. Against 6,839,000 pounds in '58, ouptut was 6,966,000 pounds in '59, with sales totaling 1,693,000 pounds, valued at $383,000 (23c. a pound). Comparable figures for the preceding year are not available.

Monomethylamine output went to 5,325,000 pounds in '59 from 3,008,000 the year before. Paralleling this rise, sales climbed to 4,670,000 pounds, valued at $1,027,000 (22c. a pound) from 2,477,000 pounds, valued at $701,000 (28c. a pound).

As the figures on production and sales of amines indicate, approximately 75 percent of total output of these chemicals is used captively by the manufacturers themselves, chiefly in the manufacture of derivatives. These same firms usually turn out one or more of the necessary raw materials, as well. For the methylamines, these are methanol and ammonia.

In greatest demand, dimethylamine has a diverse end-use pattern. It gets into the manufacture of rubber accelerators, one of the earliest applications; textile chemicals; detergents, and herbicides, among other end-products.

Ethyl Alcohol—Production of specially denatured alcohol in June amounted to 22,381,671 gallons, bringing the cumulative total for the year (July 1, 1959 to June 30, 1960) to 279,053,721 gallons. This compares with 256,795,508 gallons in 1958-59.

Despite this substantial yearly gain, output in June was below that of May (24,838,840 gallons) and June 1959 (22,834,829 gallons).

Withdrawals of SD-alcohol in 1959-60 totaled 282,620,077 gallons, significantly higher than the 256,231,671 gallons the year before. Withdrawals in June were 22,061,352 gallons, down from 27,237,367 in May but up from 21,578,848 in June, 1959.

Stocks of SD-alcohol remaining at June's end were 3,702,434 gallons, way below the June 1959 figure of 6,721,855.

Production of completely denatured alcohol in June was 27,511 gallons, bringing the cumulative total for the year to 672,302. This compares with 739,358 in the same twelve month period in 1959-60.

Paralleling the overall decline, output in June was considerably off from May

Organic Chemicals Output and Sales: 1959

The following figures represent output and sales of specified organic chemicals in 1959, as reported by the Tariff Commission.

	Production 1000 pounds	Sales Quantity 1,000 pounds	Sales Value 1,000 Dollars
Acetic Acid:			
Synthetic	648,720	108,984	9,455
Natural (wood distillation)	—	—	—
Acetic anhydride	1,096,677	78,703	9,013
Acetone	736,209	441,744	31,699
Acrylonitrile	232,253	192,091	49,594
1,3-Butadiene (rubber grade)	—	—	—
Carbon disulfide	561,138	461,522	24,716
Carbon tetrachloride	367,847	207,442	23,913
Ethanolamines (Mono-, di-, and tri)	124,812	103,433	22,474
Ethyl acetate (85 percent)	101,027	85,417	9,954
Ethylene glycol	1,214,550	630,227	62,791
Formaldehyde (37 percent by weight)	1,750,218	685,986	22,965
Methanol:			
Synthetic	1,759,182	1,031,048	38,020
Natural (wood distillation)	—	—	—
Pentaerythritol	64,137	52,253	15,382
Perchloroethylene	—	—	—
Propylene glycol	151,510	—	—
Trichloroethylene	350,223	302,215	34,950

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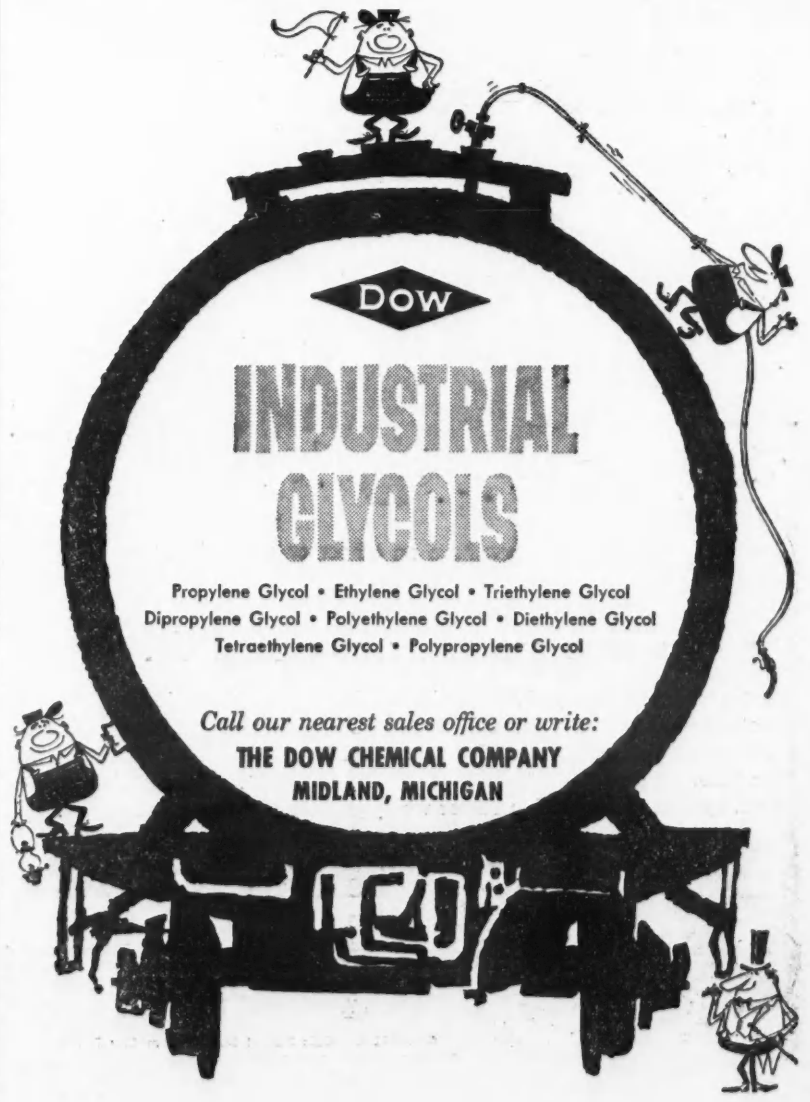
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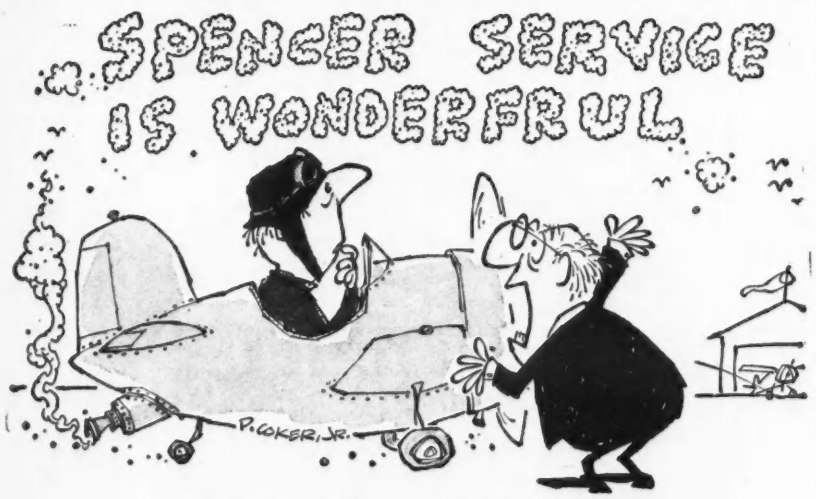

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Aliphatic Organics

(41,576 gallons) and June 1959 (35,306 gallons).

Withdrawals of completely denatured alcohol were 32,533 in June, down from 38,520 in May. Contrary to the trend, however, this was still higher than the June 1959 figure (29,622).

Stocks of completely denatured alcohol totaled 18,569 gallons on June 30, compared with 23,585 gallons thiry days earlier, and 22,053 gallons a year earlier.

Furfural—A ½c. per pound reduction in the tankcar price of furfural was announced August 25 by the sole US producer of the chemical.

Coincidentally, a major producer of nylon-66 disclosed that is was discontinuing the manufacture of adiponitrile, in which furfural is the starting material, at its Niagara Falls facilities late in 1961.

This firm has used two routes to nylon: Furfural-ADN and butadiene-ADN. Future plans call for the sole use of the latter process, reportedly the cheaper of the two.

As is quite apparent, furfural needs new end-uses to compensate for anticipated losses in the nylon market. Lower prices could help spur research and development.

Glycerine—The Glycerine Producers' Association sends us this note:

"In the interest of accuracy and economy, the US Census Bureau is planning a change in reporting of glycerine stocks —limiting its reports to producers' stocks only, beginning with July figures. This will require a recalcuation of 'disappearance' for previous months on a new basis. As revised, it will represent domestic movement of glycerine from producers to consumers, rather than movement into use.

"In view of the above change, we suggest that the six-months "preliminary disappearance" figures are open to question and may overstate actual glycerine disposition in the first six months of 1960."

According to the Census bureau's latest report, producers stocks (crude and refined) were 47 million pounds at the end of July. This compared with 46.9 million at the end of June, and 31.9 million at the end of July a year ago.

Down 4 million pounds from June, glycerine output was 20.9 million pounds in July. This was still 2 million pounds higher than output in July 1959.

Based on the newly-issued figures on producers stocks at the end of July, the Glycerine Producers' Association estimates that 144.2 million pounds of glycerine went from producer to consumer during the first half of 1960.

An analysis of the figures shows that production of crude and synthetic glycerine in July, amounting to 20.9 million pounds, was down 16.1 percent from June, while producers' factory and warehouse stocks rose 10.7 percent to 19.6 million pounds.

Output of refined grades were also off in July; at 21 million pounds, it was down 11 percent from June. At the same time, however, stocks declined 6.2 percent to 27.4 million pounds.

Pentaerythritol—Total sales of pentaerythritol in 1959 were 52,283,000 pounds, valued at $15,382,000 or 29c. a pound. As reported earlier, production was 64,137,000 pounds, up from approximately 53.3 million pounds in 1958.

From the looks of the monthly production figures for the first half of 1960, PE is likely to have another good year. Output through June was 32.8 million pounds, with the peak, 5.8 million pounds, reached in March. The low, 5.1 million pounds, occurred in May but a slight upturn—to 5.3 million—followed in June.

Output of pentaerythritol tetranitrate in 1959 was 4,370,000 pounds, an appreciable gain over 1958's 3,961,000 pounds. Also up, sales totaled 2,488,000 pounds (valued at $1,895,000 or 76c. a pound) in '59, compared with 2,223,000 (valued at $1,697,000 or 76c. a pound) the year before.

Mainly responsible for the big boost in PE output and sales last year, trade sources say, was increased ouput of alkyd resins, the polyol's major market.

Also, based on Tariff Commission figures, more PE went into the manufacture of a derivative chemical, PE tetranitrate, in '59 than the year before.

Vinyl Acetate—Major producers recently posted lower prices for vinyl acetate monomer. Newly quoted are tankcar prices of 15.6c. a pound in zone 1 and 16.6c. a pound in zone 2, both 1.9c. a pound lower than those listed formerly.

Drug Trade in Peru

—*Continued from page 5*

reductions of at least 10 percent through th following procedure:

All pharmaceutical products must be re-registered from August 1 to December 31. Domestic products, which will be registered during the first two months of this period, will be denied re-registration unless the sale price indicated in the application is at least 10 percent lower than the price of the same period on January 1, 1960.

When imported products are registered during the last three months of the year, the commission is empowered to refuse registration to any product that is priced higher than the highest-priced domestic equivalent.

The commission's standard of equivalence is based on therapeutic properties regardless of chemical composition. Requests for re-registration of imported products must be filed between October 1 and October 31.

Price Ceiling Set

National and imported pharmaceutical products already on the market or enroute to Peru or for which customs clearance had been requested as of the government's August 1 decree may be sold until January, 1961, but at prices no higher than in force on July 24, 1960.

Registration of new products (those not previously registered) will begin on January 2, 1961. Re-registrations as well as new registrations will be valid for a three-year period.

One resolution issued by the President authorizes the Ministry of Health & Welfare to acquire a list of thirty groups of pharmaceutical specialties comprising antibiotics, sulfas, anti-anemics, and other commonly-used drugs and make them available to the most needy classes through popular drug stores and public dispensaries.

Further, state and other social and public welfare dispensaries. operating with public funds will not be allowed to acquire imported medicinal or dietetic products which are classified as similar to domestic products.

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Obituaries

Carl Nielsen

Carl Nielsen, retired director of nutrition and pharmaceutical research for Abbott Laboratories, died August 31 in San Francisco. He was eighty years old.

Mr. Nielsen was active with Abbott for thirty-four years before his retirement in 1946. He was a member of the board of directors from 1934 to 1946. Among other achievements with Abbott, he played an important role in the industrial development of halibut liver oil and other fish oils of high vitamin potency. In addition to organizing three of the firm's research and control arms, Mr. Nielsen directed the development of multiple vitamin capsules and other nutritional products.

George S. Smith, vice-president and director of engineering at Johns-Mansville Corporation, died September 5 in New York. He was sixty-two years old.

George J. Stanley, a director and retired vice-president of Aluminum Company of America, died September 7 in Pittsburgh, Pa. He was eighty-three years old.

Pfizer Research Facility To be Dedicated October 6

New Pfizer Medical Research Laboratories, already in full operation in Groton, Conn., will be dedicated October 6.

The major address will be given by Dr. Irvine H. Page, director of research at the Cleveland Clinic Foundation and an authority in the field of brain chemistry, hypertension and heart disease. Dr. Page headed the research team which first isolated serotonin, a neurohormone whose role in mental illness and other conditions in the target of investigation at Pfizer and elsewhere. His topic will be "The Beginning and Development of Medical Disciplines."

Gov. Abraham Ribicoff of Connecticut also will speak and brief talks will be given by John E. McKeen, president of the 111-year-old pharmaceutical and chemical company and by Jasper H. Kane, vice-president in charge of research and development.

Bristol's Penicillin

—Continued from page 3

ports that the new penicillin has been found active in both test tube and animal tests against strains of staphylococcus resistant to penicillin G, most commonly used penicillin..

When animal tests were made with resistant staphylococcus areus strains, Dr. Gourevitch reports, infections were readily cured by the new penicillin, while extremely high doses of penicillin G had no effect.

Dr. Gourevitch's report was heard last week in Syracuse at a symposium sponsored by the State University of New York.

The new penicillin development was first disclosed a month ago in an "OPD Report From Europe" (OPD, 8/15/60). The drug was developed by a British firm, Beecham Research Laboratories, a part of the Beecham Group, Ltd.

Beecham, which reports the drug in the September issue of the *British Medical Journal,* sells the new penicillin under the trade name "Celbenin." But chemically it is the same material as the Bristol product: 2,6-dimethoxyphenyl penicillin.

In other recent developments , Dr. Philip I. Bowman, president of Bristol Laboratories, promised every hospital in the US a free emergency supply of the new synthetic penicillin.

Shipments of "Staphcillin" to more than 10,000 hospitals will begin as soon as government procedures permit general distribution, Dr. Bowman announces. Meanwhile, hospitals and other medical institutions equipped for clinical research may apply for investigational quantities, he adds.

Coca Cola, Minute Maid Discussing Possible Merger

Two of the world's largest beverage companies, both having marginal interests in the chemical business, are talking merger.

Spokesmen for Coca Cola Company, reportedly the largest consumer of caffeine, and Minute Maid Corporation, a producer of citrous oils as well as frozen juices, confirmed that exploratory discussions are taking place.

Proposed basis of the consolidation would be an exchange of one share of Coca Cola stock for 2.2 shares of Minute Maid common.

US Petroleum Naphthalene

—Continued from page 5

market, which right now gets all its supply from cokeoven operations, indicate that the squeeze is still on and is likely to worsen by 1961.

Imports are sharply lower, and availability of material from overseas is most likely to decrease further as Europe continues to step up its PA production.

Reversing its earlier stance, the steel industry now confesses that it will be just coasting along for the balance of the year without significant improvement over its currently low operating rate. This, of course, means low output of cokeoven naphthalene.

DCAT Completes Program

—Continued from page 7

DCAT President, William W. Huisking, and the election of members to the DCAT executive committee will complete the morning's session.

A special afternoon session on product liability will be held on Thursday, September 15. An open discussion will follow a presentation by Warren Freedman, counsel for Clairol, Inc., entitled "The 1960 Cutter Decision—A Lesson in Judicial Lawmaking: No Fault=Liability."

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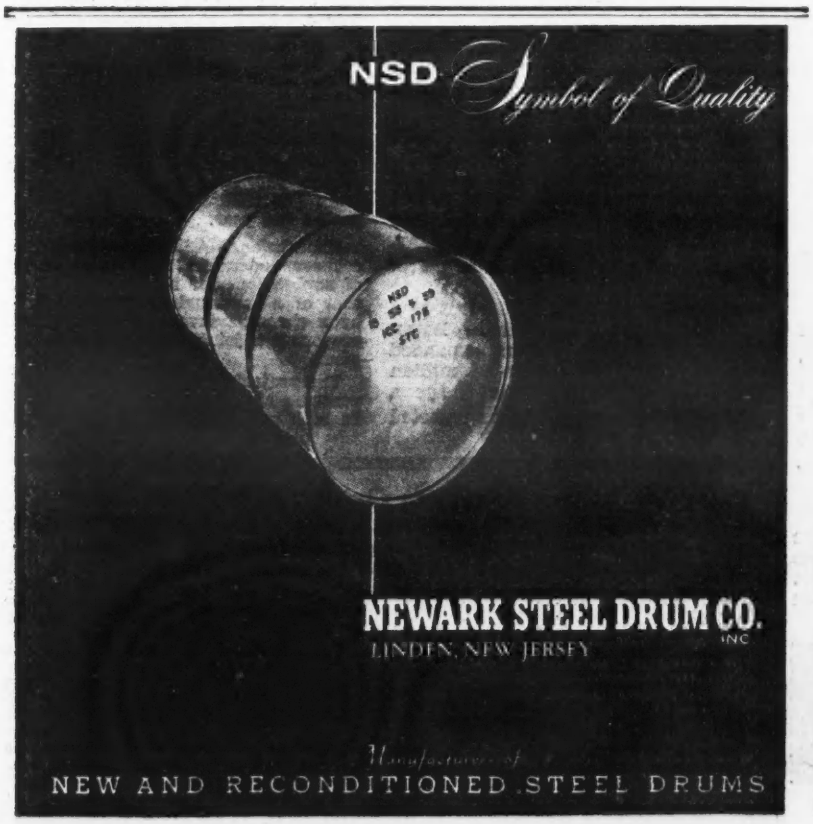

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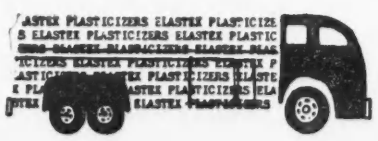

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Coal Chemicals

The post-Labor Day period is usually one marked by a quickening of business activity. Summer vacations are wrapped up and the index of production is set for a climb to higher ground. This year, however, the change in the weather has brought no perceptible increase in business yet. Instead, the coal chemicals industry finds itself faced with the same problems as in June plus the addition of few new ones. Steel production still lags, and the daily and trade press is replete with studied commentaries on the effects of reduced output. Prognoses follows diagnoses, but steel rate remains in the fifties. Result, of course, is diminished supply of coal chemicals and the products derived or produced from them.

Prospects of steel recovery appears dim, according to most reports. In order to begin to catch up with demand for such items as benzene, naphthalene, *et al.*, and to build sufficient working inventories, most observers feel a steel rate between 70 and 80 percent would have to be sustained for three months.

Purchasing agents throughout the country do not appear ready to cooperate in such a drive.

Either manufacturers find themselves well-stocked from the halcyon production days subsequent to the steel strike, or their requirements are not large enough to warrant orders in the heavy volume predicted for this period earlier in the year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
118.28	118.28	118.40	118.45

For Current Prices See Page 10

October 1 Price Advances

Diphenylamine, 1c. per lb.
Dodecylbenzene, ½c. per lb.
Phenol, USP, 1c. per lb.

Until orders do begin to arrive at the mills on other than a hand to mouth basis, no increase in products from cokeovens can be expected.

One problem being met with moderate success is the rail strike.

Most chemical men contacted last week conceded their traffic experts were working a little harder, but that shipments were moving via truck or on right of way of railroads unaffected by the union walkout. Here and there along the route there are delays. However, the industry is taking the additional burden calmly. Of course the strike is but a fortnight old and included in that period was the Labor Day quietus. Should the strike continue its effects are bound to magnify and intensify whatever transportation problems now faced by shipper and receiver.

A major producer last week announced a 1 cent across the board advance of USP phenol. New schedule went into effect immediately on spot and becomes effective Oct. 1 for contract customers.

Increased competition for coke-derived chemicals is shaping up fast as two announcements made last week reveal.

- A fifty-thousand pound petroleum naphthalene plant to be located in Los Angeles was proposed as a joint venture by an oil firm and a chemical company.
- On the Gulf coast a major petroleum producer announced plans to boost benzene capacity 60 percent at a Louisiana plant. Located in Baton Rouge the facility will be expanded from 15 million gallons to 24 million gallons annually by the end of the year.

Coke production in July, as reported by Bureau of Mines, totaled 4,027,399 net tons. This was the fourth successive month that coke production decreased, and the cumulative production through July was 4 percent below the 1959 output for the corresponding period.

The American Iron and Steel Institute estimated that steel production in the week ended September 11 would amount to 50.6 percent of theoretical capacity equivalent to 1,441,000 net tons of steel. Output in the week previous was 1,483,000 tons, 1,525,000 in the comparable week one month ago and 327,000 net tons in the corresponding week one year ago.

Basic Products

Benzene—Supply remains tight with no sign of easing.

A continuing retarded steel rate and reports that consumers are working off steel inventories does not seem to cast any hope that cokeovens will be able to renew depleted inventories.

Production through July was 93 million gallons, most of it poured out in the boom periods right after the strike settlement. Production in the same period last year, which included some of the strike time, was 97.8 million gallons.

In contrast, petroleum producers through June, one month less, have turned out close to 150 million gallons.

Estimates of when a return to a somewhat balanced supply/demand picture can be accomplished are hard to come by. The present condition of steel and coke does not seem capable of being remedied before the end of the year. Some spokesmen say a sustained rate in the seventies for three months would return benzene to an adequate supply level. The only problem is to come up with the three months.

Coaltar—The lowest steel operating rate of the year occurred the week of July 4.

Despite this the month of July showed improvement over June in production of coaltar.

According to Bureau of Mines July's figure was 48.9 million gallons, an increase of 8.5 million gallons from June.

Production for the first seven months of the year was 460.2 million gallons, down 11.3 million gallons from the same period last year.

Naphthalene—Added competition for cokeoven operators and increased supply of naphthalene for buyers—that's the upshot of a communique issued last week by a chemical firm and an oil company proposing a joint petroleum naphthalene plant.

The projected plant, second of the joint ventures planned by the two firms, is to be built in Los Angeles at the site of the

Cokeoven Output: July

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

	July 1960	*July* 1959	*First Seven Months* 1960	*First Seven Months* 1959
Benzene, nitration	7,120,654	5,045,900	68,876,151	63,642,500
Industrial pure	2,164,004	1,795,400	23,270,856	23,469,800
Industrial 90 and other	62,733	98,500	941,751	778,200
Coaltar, crude	48,932,368	40,480,500	460,225,422	371,520,500
Chemical oil, crude	2,191,374	1,243,100	18,717,874	14,751,800
Solvent naphtha, crude and refined	330,262	256,400	3,119,864	3,116,200
Toluene, nitration	1,843,736	1,277,600	16,106,158	15,707,900
Industrial pure	453,262	415,400	3,663,862	4,116,200
Xylene, all grades	674,031	440,100	5,070,513	5,443,500

Coal Chemicals

chemical company's existing complex. Location of the other plant, now building, is at the oil company's refinery south of Wilmington.

Scheduled for completion late in 1961 the Los Angeles plant will have an initial capacity of 50 million pounds a year, according to the joint announcement.

A spokesman cited the need for additional naphthalene supply to take up the slack caused by falling imports and lagging output by cokeovens.

In addition the petroleum naphthalene

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended September 4, were as follows:

Ammonia liquor	lbs.	456.257
Ammonium sulfate	lbs.	19.188.133
Benzene	gals.	1.950.375
Coaltar	gals.	10.113.692
Crude chemical oil	gals.	295.722
Solvent naphtha	gals.	59.144
Toluene	gals.	414.010
Xylene	gals.	118.289

was touted as "particularly suitable for the newer fluid-bed phthalic anhydride plants and for manufacture of naphthols, synthetic tanning agents, surfactants, dye intermediates, moth repellents, and other products which are now dependent on refined grades of coal tar naphthalene."

Current market conditions for napnthalene are unchanged except in degree. Comments from trade observers indicate the supply situation continues tight and, if possible, tighter than heretofore reported.

Imports are in negligible amounts and usually are accompanied by out of the question price tags. Europe's booming chemical markets are pre-empting most all of the material once allocated for export to the US.

Phenol—A 1c. across the board price increase of USP phenol was announced last week by a major producer. Effective immediately for spot purchasers, the new schedule goes into effect for contract customers Oct. 1. Other producers contacted at press time Friday were not ready to commit themselves on the possibility of a price increase. Contract notification date is Sept. 15, so that further announcements, if any, should be made early this week.

a-Picoline — Supply remains on the tight side with demand continuing at a high level.

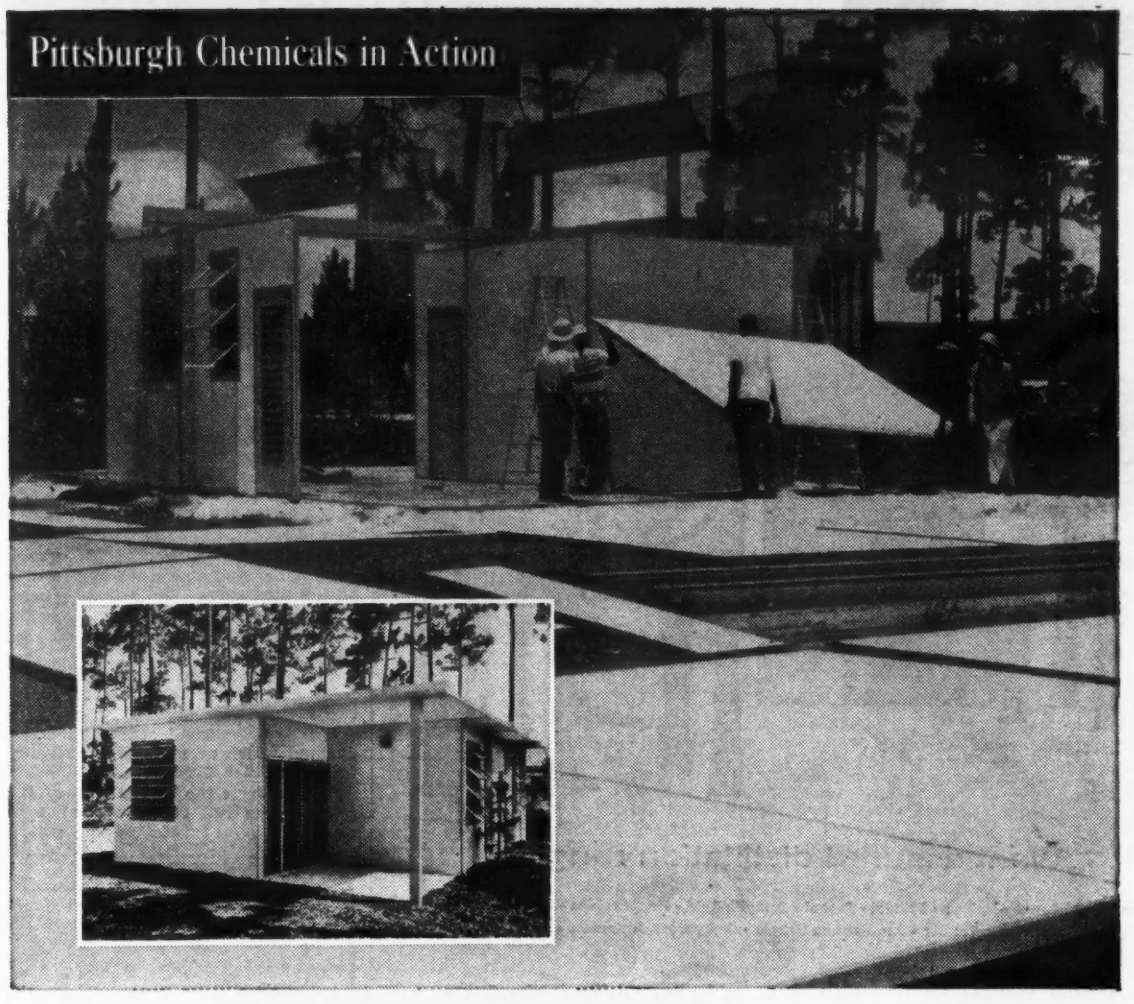
The 5c. across the board advance of August 1 seems to have had little effect on the market, according to trade sources.

A problem for producers has been getting the proper crude stocks.

One spokesman last week commented that it was strictly a hand to mouth operation at present.

When queried about the effect of the rail strike, the spokesman replied that no serious consequence had been felt as yet but that continuation of the walkout would place supply of raw material in further jeopardy.

—*Continued on page 52*



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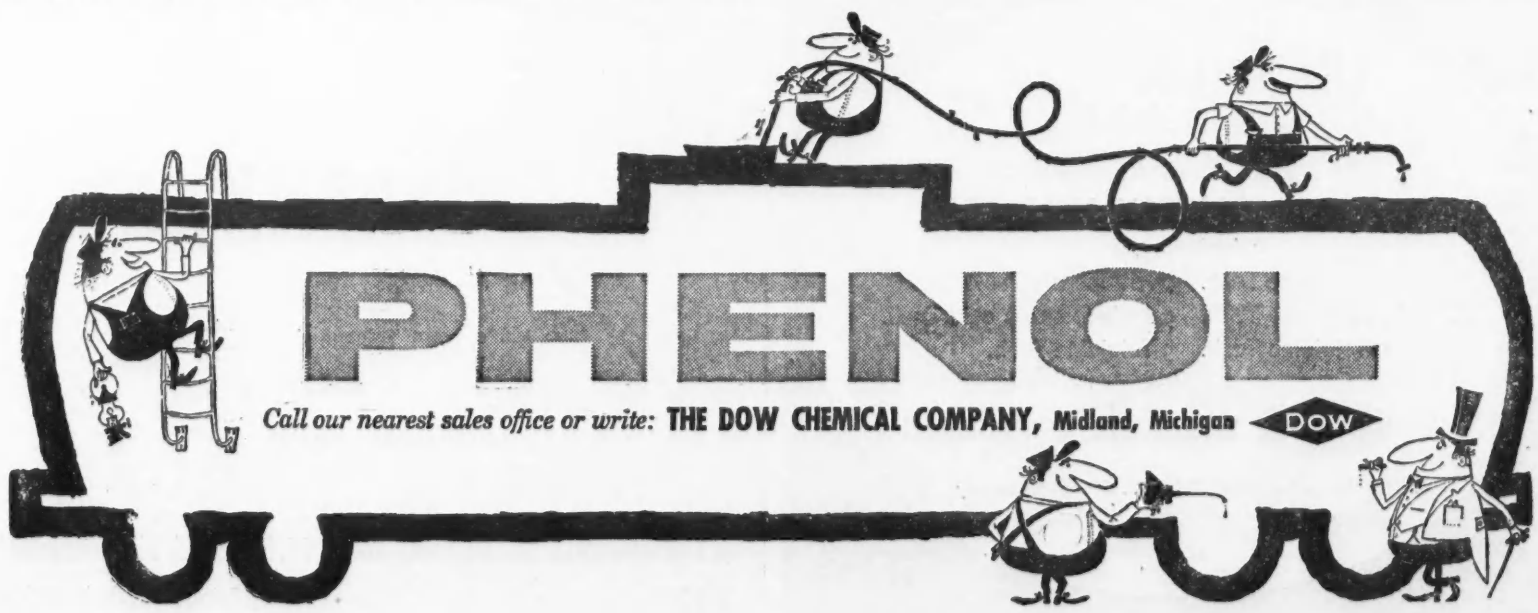

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Coal Chemicals

Tar Acids—Natural tar acids have shown great improvement recently, according to one trade commentator.

The healthy aspect of cresols, cresylic acid and natural phenols is in sharp contrast to their depressed position earlier during the first half of the year.

Prices are unchanged from previous reports.

Intermediates

Maleic Anhydride—market conditions remain strong for MA although some areas are indicating signs of weakness.

This is particularly significant in polyesters.

Reason is to be found in part in the boating industry's high inventories.

Polyesters are used in fiberglass which has found increasing favor in small craft building. This year, however, sales have not been as high as expected, leaving builders with boats on hand and a seasonal dip expected in the form of winter weather.

Prices continue unchanged.

Phthalic Anhydride—Supply continues on the snug side.

Demand, which had been easing through mid-August, started a climb as September was approached.

Trade spokesmen contacted last week felt this increase could be attributed to two factors.

One is the normal seasonal increase in demand which accompanies the return to full industrial production.

The other is the expectation of the effects of the rail strike on deliveries of materials.

Whatever the reason, PA is currently showing signs of being tighter than the position held through the summer.

Current domestic price remains unchanged. Reports of export prices, however, are ranging upwards to 30c.

Styrene Monomer—Requirements in the rubber and plastics industries are expected to continue on the increase in the coming year. However, incremental growth will not match the pace of the past two years, sources report.

The industry ran at capacity last year and, in some cases at least, producers had to buy styrene to supplement their own output. In other words they were in effect running at 110 percent to 115 percent of capacity. Producers slated expansions and some of these have been completed. Sources anticipate that the industry will be cutting back to a level more conducive to economic operation in the coming months.

Polyester and styrene emulsion end-uses continue to exhibit good tone. While consumption of monomer in these end-uses does not approach that in the rubber industry, for example, they have shown good growth in recent years and the potential for further growth is there, sources report.

Business and Defense Services Administration reported production of S-type synthetic rubber in July at 95,584 long tons; butyl, 8,389 tons; neoprene, 10,210 tons; and N-type, 2,401 long tons.

Consumption of S-type rubber totaled 67,853 during the month while use of butyl rubber amounted to 4,597 tons; neoprene, 4,936 tons; and N-type, 2,027 long tons.

Stocks of S-type on hand at the close of July were 192,552 long tons; butyl, 18,689 tons; neoprene, 16,954 tons; and N-type, 7,498 long tons.

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Trade Name Chemicals & Specialties

Fatty acid manufacturers currently market better than 400 million pounds of fatty acids for consumption in plastics and resins, surfactants, rubber products, paint and varnish, and in the production of other chemicals. End-use patterns have become so widely diversified that some reports indicate that no one application consumes more than 15 to 18 percent of total fatty acid output.

The materials usually associated with the fatty acid industry are straight chain hydrocarbons with at least six carbon atoms in the chain and terminating in a carboxyl group.

However, fatty acids of greatest commercial importance are those with 12 to 18 carbon atoms in the hydrocarbon chain. Among saturated acids this would include lauric, myristic, palmitic and stearic acids. Oleic and linoleic acids are of major importance among unsaturated acids. Ricinoleic, a substituted acid and the main constituent in castor oil, contains a hydroxyl grouping. Dehydration of this acid yields an isomer of linoleic acid which is valuable in drying oils because of the conjugated position of its double bonds.

All of the fatty acids occur in vegetable oils and in animal and marine fats and oils in varying concentrations, usually mixed fatty acids in combination with glycerine as the glycerine ester or triglyceride. The first step in fatty acid production then, is fat-splitting or hydrolysis to obtain the fatty acid mixture plus glycerine.

Crest Chemical Corporation is offering a new cationic softener trade named, **"Velvacrest L."** The material is offered as a liquid emulsion and is recommended by the company for use in synthetic fabrics manufacture. Crest points out that the new softener can be added directly to the bath where it is to be used.

WHAT'S REPORTED ON HERE

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materials that might be included in this section, write OIL, PAINT AND DRUG REPORTER'S Technical Editor, 30 Church street, New York 7.

Fatty Acids

Production of fatty acids in the United States is estimated at better than 400 million pounds annually. End-use patterns are highly diversified and it is estimated that no single field of application consumes more than 15-18 percent of total output each year.

Strictly speaking, any straight chain acid which terminates in a carboxyl group might be considered a fatty acid. However, only those acids with six carbon atoms or more in the chain are associated with the fatty acid industry. Saturated acids, such as lauric, myristic, palmitic and stearic, with 12 to 18 carbon atoms, are considered of major commercial importance. Output of saturated fatty acids comprises over half of total fatty acids production.

Among the unsaturates, 18 carbon atom acids such as oleic, linoleic and ricinoleic are most important. Production of oleic in 1958 amounted to 73.7 million pounds as against 87 million in the previous year and 97.6 million pounds during the peak production year of 1956.

All of these acids, and many more, occur naturally in a variety of vegetable oils or animal and marine fats and oils. For example, a coconut oil analysis might be as follows:

Acid	*No. Carbon Atoms*	*Percent Composition (by weight)*
Caproic	C- 6	trace
Caprylic	C- 8	7.9
Capric	C-10	7.2
Lauric	C-12	48.0
Myristic	C-14	17.5
Palmitic	C-16	9.0
Stearic	C-18	2.1
Oleic	C-18	5.7
Linoleic	C-18	2.6

These fatty acids are usually found in combination with glycerine in the form of the glycerine ester or triglyceride. Three molecules of fatty acid (usually of varying composition) are combined with one molecule of glycerine to form the triglyceride. Fat-splitting, or hydrolysis, is the first step in fatty acid production and yields the free acid mixture plus glycerine.

Since a linkage with other functional groups is always possible at the double bond, oxidation poses a threat to the stability of unsaturated fatty acids. However, the reaction is used to advantage in the production of valuable polymeric products for paints and protective coatings. Oxidation of higher unsaturates with hydrogen peroxide yields epoxy compounds and their derived alcohols and esters which are useful as plasticizers. The halogens also react readily at the double bond, while hydrogen reacts only in the presence of catalysts. Oleic acid, with one double bond in an 18 carbon chain, is the most abundant unsaturated fatty acid and is found in varying amounts in all natural fats and oils. Highly unsaturated oils, such as clupanodonic with five double bonds are found mainly in marine oils.

E. I. duPont de Nemours & Co. manufactures **"Lorol"** fatty alcohols from the acids contained in coconut oil. Copra, the dried meat of the coconut, is ground, heated with steam and squeezed between rollers to press the "oil" from the ground meal. The raw coconut oil is treated with dilute caustic to remove the fatty acids. The acids are converted to fatty alcohols by high pressure hydrogenation in the presence of a catalyst. The mixture from the hydrogenation process is then filtered to remove the catalyst and then further refined to give **"Lorol"** fatty alcohols.

Coconut is one of the few natural oils containing large percentages of lauric and myristic acids, and these are converted to lauryl and myristyl alcohols by the above process. **"Lorol"** 5, 7, 9, and 11 are essentially technical lauryl alcohols which contain principally lauryl and myristyl alcohols in varying proportions. **"Lorol"** 20 and 22 are n-octyl and n-decyl alcohols, respectively, while **"Lorol"** 24 and 28 are cetyl and stearyl alcohols.

The technical lauryl alcohols can be converted to their corresponding halides, the company points out. Probably the best known is lauryl chloride, starting material in the production of dodecyl mercaptan. The latter is subsequently used as a chain monomer for addition polymerization of certain monomers. A good example of the latter reaction is the copolymerization of styrene and butadiene to form synthetic rubber. This reaction proceeds at 120 degrees F. in the presence of dodecyl mercaptan.

Various quaternary ammonium compounds useful in sanitizer formulations and as textile assistants and wetting agents in paper manufacture can also be made from alkyl halides.

Detergents with high quality foam, good density and stability are produced by sulfonation and neutralization of technical lauryl alcohols. The alcohol may be sulfated with chlorosulfonic acid to give the sulfate ester. The ester is then neutralized with alkali and the resultant salt used as a surface active agent. Fatty alcohol sulfates show good stability in emulsions, light color and a minimum tendency to remove natural oils. The latter properties are especially attractive to makers of hair shampoos.

The combination of long hydrocarbon chain and hydrophilic terminal carboxyl group, characteristic of fatty acids, makes them highly favored materials for application as surface active agents. Tariff Commission figures indicate production of sulfated and sulfonated surface active agents from fatty acids, alcohols and esters amounted to 187.4 million pounds with sales of 178.8 million valued at $35.2 million. These figures compare favorably

—*Continued on page 64*

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Details of radioactive isotopes and labeled compounds have been listed to stimulate interest in this field.

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SUPERFINE GRANULAR TYPE 60-100	100% (±) passes through 60 mesh. Approximately 25% remains on 100 mesh. 45-50% passes through 100 mesh and remains on 200 mesh. 25-35% passes through 200 mesh. A very fine free-flowing crystal suitable for dry gelatin capsules or tableting. Useful in dry mixtures, food supplements.
FINE POWDER TYPE 100	100% (±) passes through 100 mesh. Produced by grinding crystalline material. Non-abrasive on tableting dies. Widely used for granulations, solutions, food supplements. Minimizes fractionation of particles in dry mixtures.
ULTRA FINE (MICRO) POWDER TYPE 325	Minimum 99% through 100 mesh. Minimum 90% through 200 mesh. Milled extremely fine. Practically devoid of abrasive action on cutting dies. Screen tests above 200 mesh are unreliable because of variations in technique, equipment, humidity, static charges, etc. Sedimentation tests and measurement of particle size in microns reveal that 60-70% of Roche material is smaller than 44 microns (equivalent to 325 mesh).
AMPUL TYPE	Very fine crystals—easily dissolved. Minimum color. Specially produced and tested for use in parenteral solutions. See Roche technical brochure "Notes on Vitamin B_1 and Vitamin C Parenteral Solutions" for complete details.
TYPE F	Especially produced for use in the food industry. Free-flowing, will not dust or clump, dissolves easily. U.S.P. in quality. 100% through 50 mesh. 98-99% remains on 200 mesh.

COATED ASCORBIC ACID — 97.5% Roche

DESCRIPTION

Coated ascorbic acid 97.5% Roche is a fine, white, or nearly white powder. It is pure U.S.P. ascorbic acid powder coated with ethyl cellulose. The manufacture of coated ascorbic acid is licensed under Patent No. 2,410,417 to Roche and customers of Roche.

SPECIFICATIONS

Particle Size	100% through 16 mesh screen 75-92% through 40 mesh screen 45-80% through 60 mesh screen 35-60% through 100 mesh screen
Assay	Minimum 97.5% ascorbic acid
Identity test	Positive for ascorbic acid
Loss on drying	Negligible

USES AND DATA

Ethyl cellulose coated ascorbic acid Roche has these advantages in pharmaceutical tablet manufacture:

- Small size, high potency (250-500 milligrams) tablets of light color can be made from dry granulations with very little excipient.
- Aids in eliminating chipping and capping during compression.
- Retards discoloration, mottling during abnormal storage conditions.
- Reduces contact of ascorbic acid with reactive materials.
- Rapidly available in aqueous solution for assay.
- Provides a tablet with slower release of ascorbic acid, tending to reduce localized acidity sometimes experienced with high potency tablets.

FOOD MANUFACTURERS

- Manufacturers of cured meats can use this type to advantage for retarding smokehouse activity, and for better protection in spice mixtures. It may also provide longer protection of color and flavor during storage and display.

DATA ON PARTICLE FINENESS

Based on U.S.P. XV-pages 934-5; N.F. 10, pages 702-3; ✱Lange's Handbook of Chemistry 5th Edition, page 911

The fineness of "powders" is described in both the U.S. Pharmacopeia and National Formulary in terms which are related to the number assigned to a standard sieve made of woven wire cloth. The size of wire, and sieve opening are standardized, together with permissible variation in both average and maximum openings.

Sieve Number	Sieve Opening in Microns	Sieve Opening Mm.	Permissible Variation in Average Opening Per Cent	Permissible Variation in Maximum Opening Per Cent	Wire Diameter Mm.
50	297	0.297	± 5	± 25	0.170-0.253
100	149	0.149	± 6	± 40	0.096-0.125
200	74	0.074	± 7	± 60	0.045-0.061
✱325	44	0.044	± 5	± 60	0.036

Standards are established for defining the fineness of powdered chemicals, together with a technique for determining the uniformity of fineness. The types of powders described in the U.S. Pharmacopeia and National Formulary do not represent the full range of particle sizes commercially available. No procedure is given for the determination of particle size in the "ultra-fine" or "micro powder" range, sometimes referred to as No. 325. This requires a sedimentation method and measurement in microns. Ordinary sieving methods are inaccurate.

The variation possible in the standard sieves plus such variables as the motion applied to the screen and physical characteristics of the powder being screened affect accuracy and duplicability of screening tests. Particle size specifications based on mesh sizes must always be regarded as nominal rather than as strictly accurate limits of particle size and distribution.

SODIUM ASCORBATE** Roche

This is the sodium salt of ascorbic acid. It is available as an odorless, tasteless, anhydrous, fine white powder or fine granular substance.

The antiscorbutic activity is in molecular proportion to ascorbic acid, one milligram of the sodium salt being equivalent to 0.889 milligram of the acid, or one milligram of the acid equivalent to 1.124 milligrams of sodium ascorbate.

Highly soluble in water—62 grams/100 ml at 25°C, 78 grams/100 ml at 75°C. Aqueous solutions are unstabile, easily oxidized on exposure to air, or other factors which affect ascorbic acid.

The pH of a sodium ascorbate solution is from 5.6 to 7.+ as compared with a pure ascorbic acid solution at pH 2.3-2.5. The more neutral characteristic of the sodium salt recommends it for high dosage oral forms where gastric sensitivity to lower pH might be undesirable. It is useful in combination with ingredients which would react unfavorably under more acid conditions. Products can be buffered to a suitable pH by combining sodium ascorbate and ascorbic acid together.

Commercial forms of sodium ascorbate are not recommended for preparation of parenteral solutions. It is more satisfactory to prepare suitably buffered solutions of Roche ampul type ascorbic acid, using sodium bicarbonate according to the special Roche method described in our technical brochure, "Notes on Vitamin B_1 and Vitamin C Parenteral Solutions."

Sodium ascorbate is of value as an antioxidant for use in comminuted meats and in curing pickles for hams, bacon, and corned beef. Because it is the salt of ascorbic acid (vitamin C), a substance naturally occurring in meats and identified in the U.S. Pharmacopeia, it may be preferred to antioxidants in the "chemical additive" class.

ERYTHORBIC ACID and SODIUM ERYTHORBATE

For Antioxidant Use Only — No Nutritional Claim Can Be Made — Literature on Request

**Sodium erythorbate Roche (formerly sodium d-isoascorbate), antioxidant with virtually no vitamin C activity. A white, free-flowing crystalline material. Slightly less soluble than ascorbic compounds. When replacing ascorbic acid, 23% more should be used to obtain equal antioxidant activity and 8% more when replacing sodium ascorbate. These differences are due to the presence of both water of crystallization and sodium which are inactive.

Erythorbic acid Roche (formerly d-isoascorbic acid) — antioxidant. Similar to sodium erythorbate described above. Useful where acid reaction or absence of sodium is desirable. For equivalent antioxidant activity use 23% less than with sodium erythorbate, or the same amount as with ascorbic acid (vitamin C).

FINE CHEMICALS DIVISION • **HOFFMANN-LA ROCHE INC** • NUTLEY 10, NEW JERSEY

In Canada: Hoffmann-La Roche Limited, Vitamin Place, 1956 Bourdon Street, St. Laurent, Montreal 9, P.Q.

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(Reprints Available)

Drugs, Fine Chemicals

While the antitrust division of the Justice department watchfully waited last week, Sen. Estes Kefauver and his lieutenants and privates on the antitrust and monopoly subcommittee resumed the probe of the drug industry's practices and policies. September 7, having only recently wound up a lengthly, headline-making investigation of hormones and tranquilizers, they turned to the antibiotics. What they wanted to know, precisely, was how three rival drug firms arrived at and maintained similar prices for antibiotics during the past several years.

Commenting on this latest round of the Kefauver hearings, several trade sources noted that the Congressional investigators have never been overly close to the industry or else they would be capable of understanding the extent of internal as well as foreign competition that faces drug manufacturers today. Furthermore, that it's an economic necessity to meet this competition if sales are to be maintained and a company's stockholders satisfied with the overall performance.

The antibiotics segment of the probe looks like a repeat performance for the Senators. As happened previously, Sen. Kefauver is doing the ruling, Sen. Dirksen, like a voice in the wilderness, the objecting. More than likely, it will be another long siege for the drug men. Incidentally, *Printers Ink* (8/19/60) has done a fine behind-the-scenes story on the whole business.

Marketwise, there wasn't much news last week. Noteworthy, however, was the reported giant surge in aspirin deliveries in August. This was attributed to the threat of a truckers drive that hung over the metropolitan New York area where the plants of many tableters are concentrated.

Aspirin—The word from some of the people in the bulk aspirin business is that August sales were tremendous. Besides being the time of year when tableters and pharmaceutical users step up requirements for this "staple," the threat of a truckers strike in the New York metropolitan area accelerated the pace of deliveries.

While it's still too early to say for sure, some trade members feel that shipments will suffer this month as a result of the unusually quick pace last. Much is contingent on the outcome of the strike. Should the truckers union extend its contract, which expired September 1, for a full thirty days, continued good business could be expected during the remainder of the month.

Coupled with brisk domestic demand in July, as reported here earlier, foreign demands were also up that month. Census bureau statistics show. Exports were 165,781 pounds, compared with 97,452 in June.

Cortisone—July exports of cortisone, including ACTH and derivatives, were valued at $529,289, compared with $80,212 the previous month, according to foreign trade statistics released by the Census bureau last week.

Since volume is never reported, dollar value is all one has to go on in attempting to determine the relative importance of foreign markets for cortisone. This indicates the preeminent position of Bermuda, which was down for $395,844 worth of the steroid. Others on the buyers roster: West Germany $24,916; Canada $21,011; Korea $19,640; Panama $5,633; and Hong Kong $1,710.

Hydrocortisone exports in July were valued at $484,658. This big increase over June shipments ($159,349) coincided with the 5c. a gram price advance posted for the steroid domestically. Whether or not the situations are related is speculative.

Buying big amounts of hydrocortisone in July were: West Germany $116,165; France $104,750; Panama $86,034; Canada $64,270; Mexico $33,849; and Bermuda $11,854.

Production of cortisone in 1959 amounted to 2,000 pounds, down from 4,000 in '58. A compensating factor for producers, however, was the 3,000-pound rise in hydrocortisone output, to 9,000 pounds. Tariff Commission issued no statistics on sales.

Gelatin—Gelatin stocks amounted to 11,308,000 pounds at July's end, slightly above the June level (11,001,000) and substantially below that of July 1959 (11,974,000 pounds). Accounting for the rise in inventories was an excess of production over shipments.

Production of gelatin in July was 3,800,000 pounds. This compares with 4,798,000 pounds in June and 3,309,000 in July a year ago. Of the total, 3,269,000 pounds were manufactured from hides while the remainder (531,000 pounds) was ossein-derived.

By type, output was, in thousands of pounds: edible 2,488; technical 299; pharmaceutical 332; and photographic 681.

Shipments of gelatin in July, at 3,493,000 pounds, were roughly equivalent to those in July 1959 (3,418,000) but appreciably below June volume of 5,010,000. As to type, shipments were, in thousands of pounds: edible 2,290; technical 215; pharmaceutical 238; and photographic 750.

Going into August, producers held stocks totaling 11,308,000 pounds, broken down this way (thousands of pounds): edible 5,450; technical 1,000; pharmaceutical 1,098; and photographic 3,760.

Menthol—Up go prices as spot stocks decline and offerings dwindle. Last week's range on Brazilian crystals was $8.75 to $9 a pound to consumers, but indications are that the ultimate level has not yet been reached.

There are several factors to consider, trade people tell us. First, the strong demand in England and on the continent for Brazilian menthol, resulting from the lack of offerings from their usual supplier, Red China. Second, limited availability of Japanese stuff and the prospect that Japan will turn net importer this year to compensate for its smaller peppermint crop and the rise in demand for menthol. And third, the growing popularity around-the-world for mentholated cigarettes. To think it all started with a penguin!

Niacin—While niacin and niacinamide prices have been heading down, the opposite trend is noted in production figures. Just possibly, the two factors are interrelated.

According to Business & Defense Serv-

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
59.93	59.93	59.93	60.49

For Current Prices see Page 10

Drugs and Fine Chemical Imports: July

Exports of selected drugs and fine chemicals for the months of June and July, 1960, as reported by the Bureau of Census, were as follows:

		July	June
Analgesics and antipyretics	lbs.	17,421	65,379
Antibiotics, n.e.c.	grs.	9,745,966	6,533,050
Ascorbic Acid	lbs.	104,765	36,242
Aspirin	lbs.	165,781	97,452
B-complex (excluding B_1 and B_{12})	lbs.	27,150	38,973
Bacitracin	100-million-units	8,230	10,867
Dihydrostreptomycin, bulk	gms.	4,191,205	3,866,050
Pectin and preparations	lbs.	65,982	57,308
Penicillin, bulk	billion units	6,631,627	5,401,478
Streptomycin, all forms	gms.	6,130,829	6,118,840
Sulfa Drugs	lbs.	55,828	61,897
Thiamin	lbs.	4,559	7,483
Vitamin A bulk and medicinal	lbs.	6,895	10,767
Vitamins, n.e.c.*	lbs.	104,191	49,456

* Not elsewhere classified by the Census bureau.

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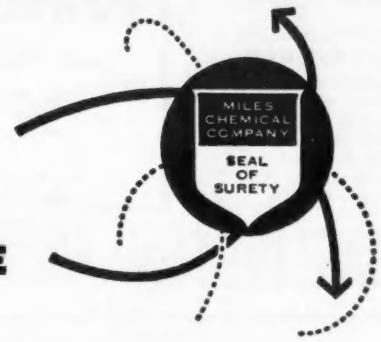

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Drugs, Fine Chemicals

ices Administration, an arm of the Commerce department, output of niacin and niacinamide reached an alltime high of 913,448 pounds in the first quarter of this year. This was attributed in part to the increasing quantities of the vitamins being used as food enrichment by manufacturers of baking and cereal products.

The Tariff Commission tells us that production of both materials was up appreciably in 1959. Output of niacin, including the animal and feed grade, was 2,513,000 pounds while sales totaled 1,477,000 pounds, valued at $2,690,000 ($1.82 a pound). This compares with 1958 production of 2,242,000 pounds, and sales of 1,321,000 pounds valued at $2,776,000 ($2.10 a pound).

Output of niacinamide last year was 1,023,000 pounds while sales totaled 671,000 pounds, valued at $2,143,000 ($3.19 a pound). In '58, output was 715,000 pounds and sales 613,000 pounds, valued $2,205,000 ($3.60 a pound).

Prednisone—July exports of prednisone were valued at $38,867, compared with $98,741 the previous month. Most of this material went to friends close-by. Canada took material worth $20,264, Mexico $11,918.

The same month, however, saw exports of prednisolone rise to $1,061,823 from $590,005 in June. Based on dollar value—volume is not disclosed—major shipments went to: West Germany $116,165; France $104,750; Panama $86,034; Canada $64,270; Mexico $33,849; and Bermuda $11,854.

Pyridoxine—Prices have come tumbling down from the past three years, but apparently the end is not yet in sight. A few weeks ago sales were reported at $95 to $100 a kilo, depending on quantity.

Last week, reports of sales at $90 a kilo on lots of from 10 to 25 kilos were heard. It was clearly understood, however, that not all domestic makers were meeting these prices. Handlers of imported material, of course, were offering still better prices if not better goods.

Although imports of B_6 have been quite substantial this year, it is unlikely that they have been the sole or even the most important factor behind the continual downtrend in prices. To the observer, in fact, it appears to be more a case of stiff competition among the domestic producers. This is indicated by the big step-up in production last year—to 60,000 pounds from 47,000 pounds in '58.

Sulfa Drugs—July exports amounted to 55,828 pounds and were valued, according to the Census bureau, at $482,363. Of the total, the smallest quantity was sulfadiazine—1,438 pounds, valued at $5,480, all of which went to India. The remainder comprised sulfathiazole (2,962 pounds, valued at $16,898) and the basket category, made up of many of the newer sulfa compounds. This last represented 51,428 pounds and a value of $482,985.

Domestic inquiry, sources report, has been rather slow for the past several weeks. A revival is anticipated, however.

Vitamin B_{12}—July exports of vitamin B_{12} were valued at $151,921. Destination of the larger shipments, based on dollar value, were: Bermuda $40,732; Brazil $36,625; Hong Kong $33,320; Spain $13,840; Philippine Republic $7,234; Japan $5,014, and Panama $444.

The domestic market is still quite competitive, following the sizable price reductions posted last June.

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Botanicals

Botanicals dealers in the New York metropolitan area last week were busily making deliveries on goods originally scheduled for shipment later this month or next. Pushing the pace was the threatened truckers strike that may be settled by the time you read this. According to one major supplier, call for immediate shipments has been a fairly common plea since the last week in August, when deliveries began in earnest.

Imports detained by the Food & Drug Administration at the Port of New York during the two-week period ended August 26, included 62 cases of chamomile flowers; 5 lots (154 bags) of gum karaya; 2 lots (591 bags) of kola nuts, and 100 cases of papain.

Tonka Beans—Imports of tonka beans in 1959 amounted to 311,046 pounds and were valued at $297,136. Of the total, Trinidad supplied 174,180 pounds at $175,420; Venezuela, 118,311 pounds at $105,952; and Brazil, 18,555 pounds at $15,764.

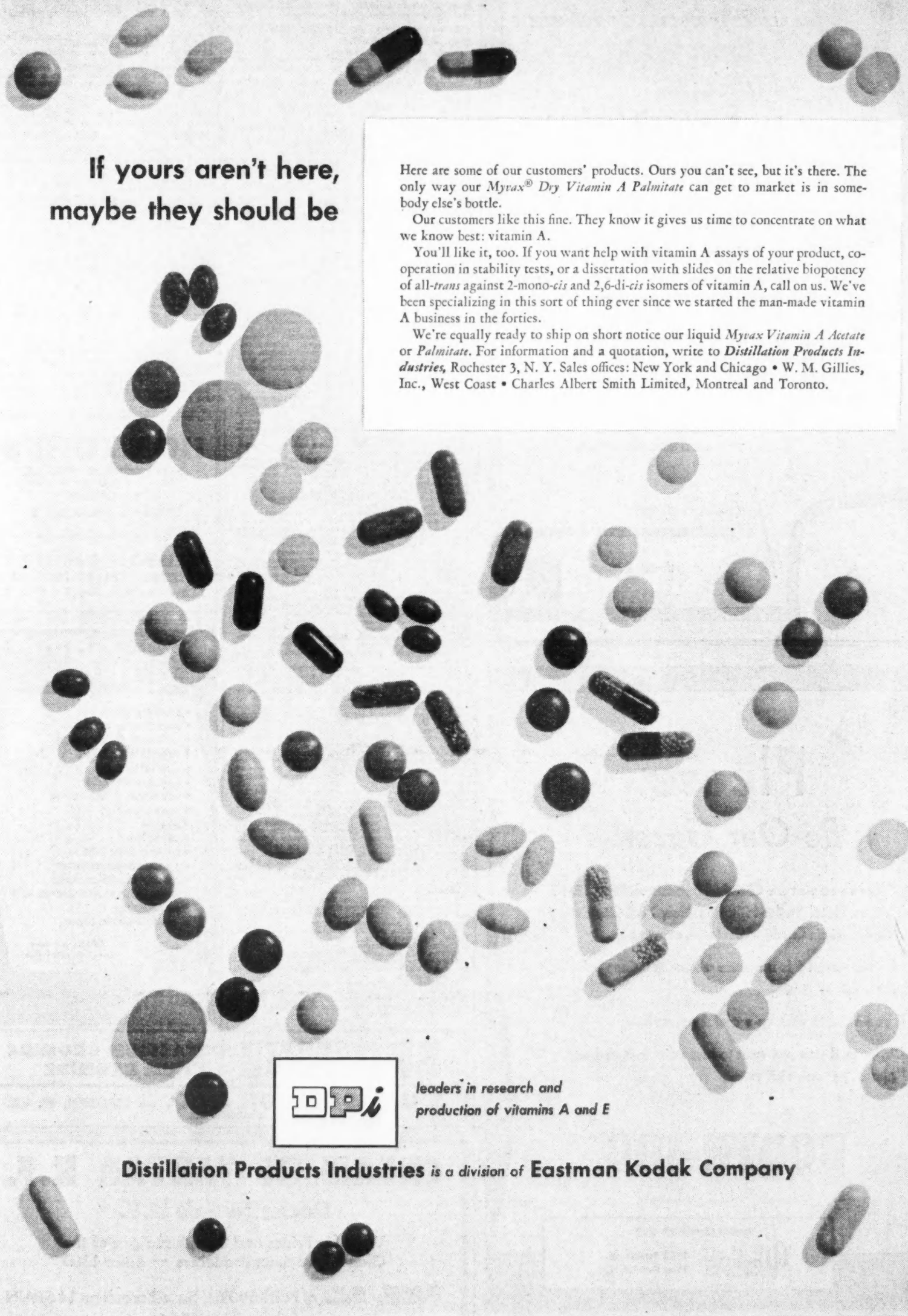
The largest quantity, 109,900 pounds, was imported here in January. October, with 77,425, was next. No material was brought in during February, March, and April.

For the first four months of '60, imports totaled 48,280 pounds and were valued at $52,232.

Indicative, perhaps, of the adverse effect of a recent FDA ruling against the food use of coumarin, a derivative, is that imports of tonka beans in January of this year were a mere 24,814 pounds, against 109,900 in '59.

Tragacanth Gum—Spot prices for the higher grades of tragacanth gum were recently boosted by dealers here, commensurate with the uptrend in replacement costs. Now, according to reports of last week, the lower grades of the gum are coming up for similarly sharp advances—probably these will amount to between 10 and 15 percent.

Today's quote for the No. 1 ribbons is $4.10 to $4.20 a pound. Interest is described as quite strong.



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Rubber Products Get FDA Time Extensions

—Continued from page 7

light-colored fillers), colors, lubricants and some miscellaneous materials.

Following are the rubber materials granted time extensions:

Elastomers: Natural rubber.
Styrene-butadiene polymer with stabilizers and/or antioxidants listed in subparagraphs (3) and (4) of this paragraph.
Chloroprene polymers with stabilizers and/or antioxidants lised in subparagraphs (3) and (4) of this paragraph.
Nitrile-butadiene polymers with stabilizers and/or antioxidants listed in subparagraphs (3) and (4) of this paragraph.
Isobutylene-isoprene polymers with stabilizers and/or antioxidants listed below.
Silicone polymers with stabilizers and/or antioxidants listed below.
Vulcanization materials:
Vulcanizing agents, sulfur, ground, tellurium.
Accelerators: 2-benzothiazyl-N-N-diethylthiocarbamyl sulfide, 2-benzothiazyl disulfide, benzoyl peroxide, bismuth dimethyldithiocarbamate, N-tert-2-benzothiazole-sulfenamide, copper dimethyldithiocarbamate, N-cyclohexyl-2-benzothiazole sulfenamide, dibenzoyl-p-quinone dioxime, dibenzylamine, di-tert-btuyl peroxide, 2,4-dichlorobenzoyl peroxide, dicumyl peroxide, 2,6-dimethyl morpholine thiobenzothiazole, N,N'-diorthotolyl guanidine.
Diorthotolyl guanidine salt of pyrocatechol borate, dipentamethylene thiuram tetrasulfide, diphenyl guanidine, 4,4'-dithiodimorpholine, ethylenediamine carbamate, hexamethylene tetramine, 2-mercaptobenzothiazole, 2-mercaptoimidazoline, 2-mercaptothiazole, N-oxidiethylene-2-benzothiazole sulfenamide, N-oxidiethylene-benzothiazole-2-sulfenamide, piperidinium pentamethylene-dithiocarbamate, potassium pentamethylene-dithiocarbamate, p-quinone dioxide, sodium dibutyldithiocarbamate tellurium diethyldithiocarbamate, tetrabutyl thiuram monosulfide, tetraethyl thiuram disulfide, tetramethyl thiuram disulfide, tetramethyl thiuram monosulfide, triethylene tetramine, triethyl-trimethyltriamine, triethyl-trimethylenetriamine, triphenyl guanidine, zinc dibutyldithiocarbamate, zinc diethyldithiocarbamate, zinc dimethyldithiocarbamate, zinc-2-mercaptobenzothiazole.
Retarders: N-Nitroso diphenylamine, phthalic anhydride, salicylic acid.
Activators: Calcium hydroxide, dibutyl-ammonium oleate, diethylamine, fatty acid amines, mixed, fatty acids, hydrated lime, lauric acid, magnesium carbonate, magnesium oxide, light and heavy, malic acid, sodium acetate, soybean lecithin-p-triethanolamine, stannous chloride, stearic acid, tall oil fatty acid, triethanolamine, zinc oxide, zinc salt of fatty acids, zinc stearate.
Protective agents—antioxidants and antiozonants: 2,5-di-tert-amyl hydroquinone, butylated hydroxy-toluene, 4,4'-butylidine bis(6-tert-butyl-m-cresol), di-tert-butyl-4-methylphenol, N-cyclohexyl-N'-phenyl-phenylenediamine, p,p'-diamine diphenylmethane, 1,2-dithydro-2,2,4-trimethyl-6-phenylquinoline, 1,2-dihydro-2,2,4-trimethylguinoline, polymerized, 4,4'dimethoxy diphenylamine, dioctyl phenylenediamine, diphenyl ethylenediamine, N,N'-diphenyl-p-phenylenediamine, N,N'-disalicylal propylenediamine, 6-dodecyl-2,2,4-trimethyl-1,2-dihydroquinoline, 6-ethoxy-1,2-dihydro-2,2,4-trimethylquinoline, hydroquinone monobenzyl ether, isopproproxy diphenylamine, N-isopropyl-N'-phenyl-p-phenylenediamine, di-p-methoxy diphenylamine, 4-methyl-6-tert-butylphenol, 2,2-methylene bis (4-methyl-6-nonylphenol), 2,2-methylene bis(4-methyl-6-tert-butylphenol).
di-b-Naphthyl-p-phenylene-diamine, tri-(nonylphenyl) phosphite, phenyl-a-naphthylamine, phenyl-b-naphthylamine, o-and p-phenylphenol, sodium pentachlorophenate, styrenated phenol, 4,4'-thiobis(6-tert-btuyl-m-cresol), thiobis(di-sec-amylphenol), 2,4-toluenediamine, m-toluenediamine, di-o-tolyl ethylenediamine, N-o-tolyl-N-'-phenyl-p-phenylenediamine, p(p-tlyl-sulfanilamide) diphenylamine.
Plasticizers: Amyl decyl phthalate, beeswax, butyl acetyl ricinoleate, butyl laurate, butyl oleate, butyl strearate, calcium stearate, carnauba wax, castor oil, coconut fatty acid, distilled, corn fatty acid, distilled, cottonseed oil, coumarone-indene resins, dibenzyl adipate, dibutoxy-ethoxy-ethyl adipate, dibutyl phthalate, dibutyl sebacate, didecyl adipate, didecyl phthalate, disodecyl adipate, disodecyl phthalate, disooctyl adipate, diisooctyl sebacate, dioctyl adipate, dioctyl phthalate, dioctyl sebacate, ethylene glycol.
Fatty acids, hydrogenated, glycerin, lanolin, lauric acid, mineral oil, mineral rubber (asphaltite), montan wax, octyldecyl adipate, octyldecyl phthalate, oleic acid (red oil), paraffin wax, petrolatum, petrodeum oil, paraffinic, petroleum oil, naphthenic, petroleum oil, sulfonated, phenol-formaldehyde resins, pine tar, polybutene, propylene glycol, rosin oil, rosin wood and derivatives, soybean fatty acids, stearic acid, terpene resins.
Fillers: Carbton black ("Channel" process only).
Light-colored fillers: Aluminum hydrate, aluminum silicate, antimony oxide, antimony trioxide, barium sulfate, calcium oxide, calcium carbonate, calcium silicate, casein, clays, cork, cotton (floc, fibers, fabric), magnesium carbonate, mica, nylon (floc, fibers, fabric), silica, talc, titanium dioxide, wood flour, zinc carbonate, zinc oxide, zinc sulfide.
Colors:
Yellow: Cadmium sulfide, zinc chromate.
Blue: Copper phthalocyanine, double silicate of sodium and aluminum with sodium sulfide (ultramarine blue), anthraquinone type.
Red: Cadmium sulfide, pyrazolone (Color Index 21120), red iron oxide.
Green: Phthalocyanine.
White: Calcium sulfate, titanium dioxide.
Lubricants: Monosodium sulfates of higher alcohols, polyethylenes of low molecular weights, sodium stearate.
Miscellaneous: tert-Butyl paracetate, di-tert-butyl paracresol, N-dodecyl mercaptan, mono- and di-heptyl diphenylamines mixture, 2-naphthalenethiol, polyethylene glycol (molecular weight 6,000), styrene monomer.

Following are the direct food additives granted time extensions, along with the limits and use restrictions specified by FDA:

Butylated hydroxyanisole, 0.1 percent, as an antioxidant in chewing gum base.
Chilte (chilte paloja), as a constituent of chewing gum base.
Hydrocarbon oil (deodorized), kerosene aliphatic type, 30 p.p.m. in filtrate, as a defoaming agent used in manufacture of glutamic acid from beet sugar process.
Soybean and cottonseed fatty acids (palmitic, stearic, oleic, linoleic, linolenic, myristic), as a defoaming agent used in manufacture of glutamic acid from beet sugar process.

Following are the indirect food additives granted time extensions, along with the limits and use restrictions specified by FDA:

Ethylene glycol monobutylether, as a constituent of paper mill felt cleaner.
Eethylene oxide condensation product (9 mols) and nonyl phenol (1 mol), as a constituent of paper mill felt cleaner.
Pine oil, as a constituent of paper coating and in food packaging.
Polyethylene glycol 600 dioleate, as a defoaming agent used in manufacture of paper and paperboard for food packaging.
Polyethylene glycol 4000 distearate, as a defoaming agent used in manufacture of paper and paperboard for food packaging.
Polyethylene glycol 1000 monostearate, as a defoaming agent used in manufacture of paper and paperboard for food packaging.
Polyoxyethylated nonyl phenol (6 mols ethylene oxide, 1 mol nonyl phenol), as a defoaming agent used in manufacture of paper and paperboard for food packaging.
Polypropylene glycol (molecular weight 2000), as a defoaming agent used in manufacture of paper and paperboard for food packaging.
Sodium bisulfate, as a constituent of paper mill felt cleaner.
Sodium dodecylbenzene sulfonate, as a constituent of paper mill felt cleaner.
Sodium o-phenylphenate, as a constituent of paper and paper coating used in food packaging.

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Drug Trade Men Bowling Tuesday Nights This Season

After bowling for sixty-seven years on Monday nights, the Wholesale Drug Trades Bowling Association this season will bowl on Tuesdays. Starting time: 5:30 p.m.

The change was made in an effort to improve league attendance and to make it possible for members to finish bowling by 8 p.m. This, it is felt, will enable them to make better commuting connections to New Jersey and Long Island.

This season the league will bowl at Nevins Bowling Center, 532 Fulton Street, Brooklyn, N.Y., located at the Nevins Street IRT subway station.

Cyanamid's Sulfuric Unit Will Be Built by Leonard

American Cyanamid Company has awarded a contract for engineering and construction of a contact sulfuric acid plant at Brewster, Fla., to Leonard Construction Company, Chicago.

The plant will use elemental sulfur as raw material. Construction will begin immediately with completion scheduled for mid-1961. Capacity and cost of the plant have not been announced.

Fertilizer, Pesticide Funds Made Available to Turkey

An allotment of $1.4 million has been made to Turkey for the purchase of fertilizers and $275,000 for the purchase of pesticides, excluding DDT, by the International Cooperation Administration.

Fertilizer purchases will consist of $800,000 of nitrogenous fertilizers; $500,000 of phosphate and phosphatic materials; and $100,000 of potash fertilizers.

Chemical Producers

—*Continued from page 4*

for this year have been revised downward slighlty and are now about 2 percent below the amount indicated in the March survey.

As previously anticipated, businessmen expect plant and equipment expenditures, which have risen almost one-fourth since the low of 1959, to level off during the second half of this year.

Manufacturers expect to spend about 20 percent more on plant and equipment in 1960 than in 1959, with durable goods producers showing the larger relative gain. Railroad and communications company outlays this year will probably be about 15 percent above 1959.

Polyethylene's Place

—*Continued from page 5*

medicated soap. Thus, products in this field need not be confined to liquids. Many powders, tablets and creams can be well-packaged in containers blow-molded from high-density polyethylene, the report states.

Some glass containers in these fields already have been replaced by packages of conventional polyethylene. But conventional plastic bottles require a lining or coating which increases the cost of the container and narrows the breadth of the market. The high-density resin, will, in many cases, eliminate the need for these costly linings.

Even though conventional polyethylene — particularly the squeeze bottles — has done an outstanding job in developing a large volume market, the high-density formula offers many advantages over conventional polyethylene for bottles, the survey says.

It is seven times stiffer, has better barrier properties, better gloss and offers better chemical resistance than conventional polyethylene. Because of the stiffness, bottles of high-density resin can be made with thin walls. This not only means a saving in material, but a speed-up in machine cycles because less cooling time is required and less material is required per bottle, it is noted.

Vick Coughs Up Name

—*Continued from page 4*

ports that ethical and veterinary drug sales now constitute 43 percent of total sales, as compared with only 29 percent five years ago. In addition, he notes that chemical and plastic sales now amount to 12 percent of the company's business.

Mr. Richardson, grandson of the firm's founder, adds that the company's anti-cholesterol drug, "MER-29," introduced to doctors last June, is growing steadily. He feels that the market for this drug could grow to $20 million a year.

The name "Drugs & Chemicals, Inc.," was also given consideration from about 100 submitted to the board of directors, but was rejected because "it lacked sex appeal," another Vick official discloses.

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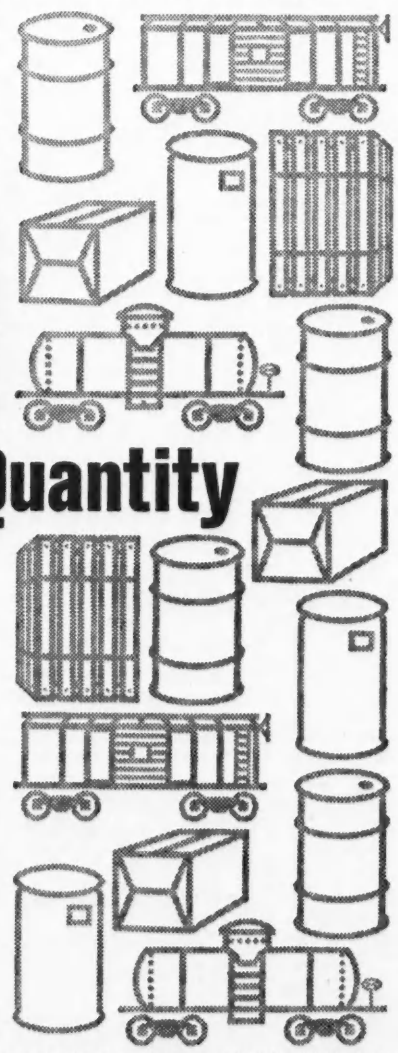

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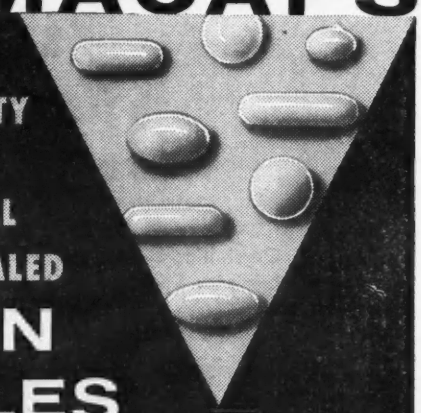

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ARNICA FLOWERS—42 bls, S B Penick & Co, Rijeka
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50 bgs, Strohmeyer & Arpe, Puerto Plata
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BELLADONNA LEAVES—87 bls, Meer Corp, Rijeka
BERGAMOT OIL—12 hf cs, Messina
CALAMUS ROOT—50 bls, S B Penick & Co, Rijeka
CALCIUM CARBONATE—800 bgs, Pluess Staufer, Antwerp
CALCIUM CYCLAMATE—10 dms, Rotterdam
CALCIUM HYPOCHLORITE—600 dms, Yokohama
CALCIUM SILICATE—5 bgs, C J Osborn Co, Rotterdam
CAMPHOR OIL—20 dms, George Uhe Co, Keelung
CANDELILLA WAX—313 bgs, Tampico
CARAWAY OIL—6 dms, Flora Essential Oils Co, Gdynia
CARAWAY SEED—100 bgs, Biddle Purchasing Co, Rotterdam
550 bgs, R J Spitz, Rotterdam
200 bgs, M J Golombeck, Rotterdam
100 bls, R J Spitz, Rotterdam
200 bls, C M Van Sillevoldt, Rotterdam
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CARDAMOMS—10 cs, Kellys America Ltd, Cochin
4 cs, H Schlicting, London
CARNAUBA WAX—63 bgs, National City Bank, Tutoia
110 bgs, Bank of N Y, Tutoia
500 bgs, Bank of London & S A, Tutoia
250 bgs, Peoples Trust Co, Tutoia
125 bgs, Chase Manhattan Bank, Tutoia
CASEIN—500 bgs, Chemical Bank, Gdynia
500 bgs, Paul A Dunkel, Gdynia
150 bgs, First Spice Co, Rotterdam
CASSIA—320 bgs, R J Spitz, Singapore
250 bls, Van Norden & Co, Saigon
CASTOR OIL—788 tons, Baker Castor Oil Co, Bombay
170 tons, Recife
CEDARWOOD OIL—25 dms, Lo Curto & Funk, Mombasa
CELERY SEED—170 bgs, L Furth, Bombay
CENTAURI HERB—20 bls, S B Penick & Co, Rijeka
CHESTNUT EXTRACT—600 bgs, Barkey Importing Co, Naples
CINNAMONLEAF OIL—5 dms, L A Champon & Co, Mombasa
CINNAMON QUILLS—50 bls, Middleton & Co, Colombo
CITRONELLA OIL—25 dms, Givaudan Corp, Hong Kong
25 dms, L A Champon & Co, Hong Kong
25 dms, George Uhe Co, Keelung
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25 dms, Givaudan Corp, Keelung
11 dms, Lo Curto & Funk, Colombo
11 dms, Ungerer & Co, Colombo
6 dms, George Uhe Co, Colombo
CLOVE—180 bgs, Zanzibar
CLOVE BUDS—6 bgs, L A Champon & Co, Mombasa
CLOVE OIL—10 dms, Morgan Guaranty Trust Co, Zanzibar
24 dms, Zanzibar
COBALT OXIDE—175 cks, Antwerp
COBALT SULFATE—20 dms, Philipp Bros Chemicals, Bremen
COCONUT OIL—380 tons, American Trust Co, Cebu
336 tons, Pacific Vegetable Oil Corp, Manila
200 tons, L A Ferm & Co, Rotterdam
CODLIVER OIL—100 dms, Arista Oil Products Co, Bergen
COLORS, DRY—1,200 bgs, Naftone Inc, Bremen
30 dms, Gothenburg
58 dms, Hamburg
COPAL GUM—161 bkts, O G Innes Corp, Singapore
13 bgs, Wm H Scheel, Singapore
63 bgs, Wm H Scheel, Manila
74 bkts, Macassar
CORIANDER SEED—300 bgs, Levy & Levis Co, Casablanca
300 bgs, Ideal Trading Co, Casablanca
300 bgs, Casablanca
CORN STARCH—100 bgs, Capetown
CORNMINT OIL—5 dms, Lo Curto & Funk, Santos
CREAM OF TARTAR—1,250 bgs, Leonhardt & Brush, London
CUBEBS—100 bgs, Singapore
CUMIN SEED—200 bgs, Chase Manhattan Bank, Khorramshahr
300 bgs, C M Van Sillevoldt, Khorramshahr
473 bgs, National City Bank, Khorramshahr
272 bgs, M J Golombeck, Khorramshahr
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25 cs, Marseille
CYANURIC CHLORIDE—1,000 dms, Geigy Chemical Corp, Rotterdam
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204 bgs, S Winterbourne & Co, Singapore
50 cs, O G Innes Corp, Bangkok
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DEXTRIN—400 bgs, Stein Hall & Co, Rotterdam
400 bgs, Morningstar Paisley Inc, Rotterdam
DIACETYL—20 cs, Lo Curto & Funk, Hamburg
DYES, COALTAR—15 dms, Orlex Dyes & Chemical Corp, Hamburg
24 dms, H Bruckmann & Lorbacher, Hamburg
EARTH COLORS—2,475 bgs, Naftone Inc, Rotterdam
60 bgs, F D Davis Co, Rotterdam
2,444 bgs, Naftone Inc, Bremen
1,175 bgs, Rotterdam
EUCALYPTUS OIL—60 dms, Lambert Hudnut Inc, Melbourne
EUPHORBIA—206 bls, Meer Corp, Tuticorin
FENNEL SEED—87 bgs, Kellys America Ltd, Bombay
FENUGREEK SEED—250 bgs, S B PePnPick & Co, Casablanca
100 bgs, Ideal Trading Co, Casablanca
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FISHLIVER OIL—10 dms, Wilbur Ellis Co, Yokohama
FISHMEAL—4,410 bgs, Marine & Animal By Products Corp, Arica
FUEL OIL—157,907 bbls, Humble Oil Co, Caripito
70,111 bbls, Humble Oil Co, Las Piedras
110,847 bbls, Mobil Oil Co, El Palito
113,771 bbls, Shell Caribbean Petroleum Co, Punta Cardon
83,000 bbls, Texaco Co, Point a Pierre
129,386 bbls, Hess Inc, Punta Cardon
GALL—8 dms, K Mayer, Melbourne
5 dms, International Packers Ltd, Melbourne
6 dms, J M Rodgers, Sydney
GARLIC OIL—10 cs, Magnus Mabee & Reynard, Kobe
GELATIN—50 dms, M Corbett & Co, Marseille
600 bgs, Davis Gelatine Corp, Sydney
35 dms, H Bruckmann & Lorbacher, Rotterdam
150 bgs, Manhattan Adhesives Corp, Hamburg
200 cks, Havre
GERANIUM OIL—10 dms, Lo Curto & Funk, Algiers
14 dms, A Chiris Co, Algiers
GHATTI GUM—114 bgs, Paul A Dunkel, Bombay
GINGER—100 bgs, Fritzsche Bros, London
GLANDS—15 cs, Van Gelder Fanto Corp, Sydney
3 cs, Van Gelder Fanto Corp, Brisbane
GRAPHITE—1,000 bgs, Asbury Graphite Mills, Hong Kong
250 bgs, Joseph Dixon Crucible Co, Colombo
750 bgs, Eagle Pencil Co, Bremen
500 bgs, Asbury Graphite Mills, Colombo
250 bgs, Colombo
GUANIDINE NITRATE—127 dms, Terra Chemicals Inc, Bremen
GUAR GUM—100 bgs, Paul A Dunkel, Genoa
7,283 bgs, Stein Hall & Co, Karachi
GYPSUM, CRUDE—20,843 tons, U S Gypsum Co, Hantsport
16,284 tons, National Gypsum Co, Halifax
IODINE, CRUDE—30 kgs, Chase Manhattan Bank, Yokohama
IRISH MOSS—60 bls, Stockeimer & Harder, Havre
IRON BLUE—13 dms, Van Oppen & Co, Liverpool
IRON OXIDE—100 dms, Hudson Shipping Co, Oslo
IRON POWDER—63 dms, H Bruckmann & Lorbachre, Rotterdam
JAPAN WAX—25 cs, Mitsubishi Corp, Kobe
JUNIPER BERRY OIL—2 cans, Fleuroma Inc, Rijeka
KARAYA GUM—256 bgs, Nehls & O'Connell, Bombay
61 bgs, Jacques Wolf, Bombay
133 bgs, Meer Corp, Bombay
378 bgs, Morningstar Paisley Inc, Bombay
245 bgs, Colony Import & Export Corp, Bombay
LECITHIN—4 cks, Rhodia Inc, Havre
LEMON OIL—2 cs, Messina
LEMONGRASS OIL—28 dms, Volkart Bros, Cochin
25 dms, Leonhardt & Brush, Puerto Barrios
10 dms, Lo Curto & Funk, Puerto Barrios
56 dms, P R Dreyer, Cochin
LICORICE ROOT—12,329 bgs, Bushire
3,198 bls, Bushire
LIME OIL—3 dms, Citrus & Allied Essential Oils Co, Puerto Plata
LINDANE—27 dms, Rotterdam
LIVERMEAL—400 bgs H S C Trading Co, Montevideo
LIVER POWDER—55 dms, Reheis Co, Montevideo
32 dms, Van Gelder Fanto Corp, Buenos Aires
8 cs, H J Saunders & Co, Rotterdam
LOCUST BEAN GUM—100 bgs, Colony Import & Export Corp, Genoa
340 bgs, T M Duche & Sons, Genoa
150 bgs, Nehls & O'Connell, Genoa
40 bbls, Oxphen Products Co, Genoa
50 bgs, T M Duche & Sons, Rotterdam
200 bgs, Irving Trust Co, Palmade Mallorca
100 bgs, National City Bank, Palmade Mallorca
LUBRICATING OIL—200 dms, Asiatic Petroleum Corp, Antwerp
MACE—28 cs, Hismoco American Co, Singapore
14 cs, Macassar
MAGNESITE, BURNT—500 bgs, Split
MAGNESIUM CARBONATE—25 cs, Lo Curto & Funk, Antwerp
MELAMINE—440 bgs, Marubeni Iida Co, Yokohama
MENTHOL—10 dms, Biddle Sawyer Corp, Marseille
20 dms, Vick Chemical Co, Marseille
30 cs, Lo Curto & Funk, Keelung
25 cs, Consumers Import Co, Keelung
18 cs, Keelung
MERCURY—50 flks, International Quicksilver Corp, Tampico
MESITYLENE—1 dm, Eastman Kodak Co, Rotterdam
12 dms, Allied Chemical Corp, Rotterdam
METHYL BROMIDE—10 dms, Dow Chemicals, Beira
MINERAL COLORS—55 bgs, Revelli Chemicals Inc, Hamburg
MOLASSES—555 tons, W R Grace & Co, Salaverry
MONOCHLOROACETIC ACID—80 dms, Bremen
MUSK, ARTIFICIAL—20 dms, Lo Curto & Funk, Rotterdam

—Continued on page 73

Petroleum Derivatives

Benzene remains in tight supply. Predicted fourth quarter price increase did not occur and reactions to this have been varied. Trade opinion now is that consumer recoil to the rumored increase was adverse enough to cause suppliers to change their plans. Others in the trade believe producers were unwilling to make the benzene market any more attractive to prospective suppliers, fearing that a long supply position might be created in time if too many producers entered the currently lucrative market. Whatever the reason, supply is still tight and expected to remain so through the balance of the year. Trade observers are becoming more reticent to offer predictions as to when the situation will loosen. If they do hazard a guess, second quarter is time they mention, but the prediction is not backed with conviction.

Conditions for other solvents are unchanged from previous reports.

Total crude runs to stills in June averaged 8,126,000 barrels per day, according to information from Bureau of Mines.

Stocks of refined products on June 30 amounted to 492,833,000 barrels, a decrease of 23,420,000 barrels from January 1, and 22,071,000 barrels below the stocks recorded on June 30, 1959.

Demand in June was 9,606,000 barrels per day, including exports of 253,000 barrels per day.

Capacity of refineries, as reported by operating companies was 9,700,000 barrels per day in June, indicating an operating rate of 83.8 percent, compared with 82.1 percent in May.

Bureau of Labor Statistics reports the June wholesale price index (1947-49 equals 100) for crude petroleum and petroleum products was 116.0, compared with 113.6 for May and 115.0 for June, 1959.

A major oil company last week announced a 60 percent boost in capacity for its Louisiana benzene plant. Located at Baton Rouge, the facility will be expanded from 15 million gallons production annually to 24 million gallons. Citing the rocketing styrene and synthetic phenol demand as reason for expansion, the company set a target completion date of December, 1960.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
103.74	103.74	103.74	103.04

For Current Prices see page 10

Aromatic Solvents

Benzene—Although in tight supply and high demand it appears this chemical will continue unchanged in price until the first of the year at least.

This, of course, is contrary to estimates advanced by the trade throughout the summer as fourth quarter announcement date approached.

What reasons, then, are now being suggested as to why the price structure was maintained at 34c. a gallon?

For one, it is felt trade talk about a price increase—rampant during the summer—brought enough criticism from consumers to cancel producers' plans, at least for the present.

One reason observers see is the fear of over-production.

That may sound ludicrous to a buyer seeking large volume in the present market, but it is a distinct possibility within the next few years.

Announcements of projected benzene units and expansions of current facilities have been prevalent in the news this year.

Observers reason that a price hike now would be all the encouragement some prospective producers would need in order to enter the production race. Thus in a few years a long supply position might be created. Such a situation usually results in price reductions—decreases which might cut prices below even current levels.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended Aug. 27 totaled 236,231,000 barrels, lowest figure since April 7, 1951, according to data reported by the Bureau of Mines. Compared with the total of 238,308,000 barrels the preceding week, this represents a decrease of 2,077,000 barrels, comprising a decrease of 1,733,000 barrels in stocks of domestic crude and an increase of 344,000 barrels in stock of foreign crude.

No producer is anxious for that to occur. Perhaps then it was thought prudent to continue present quotations in hopes of maintaining a strong market structure throughout the next few years.

Aliphatic Solvents

Hexane—The trend to solvent extraction of cottonseed and soybean oils instead of expeller methods is continuing, according to one trade commentator.

In cottonseed particularly, the rise of extraction plants in the growing areas of the southeast has been notable.

In the currency market hexane continues unchanged in price at New York and New Jersey in tankcars at 20c. a gallon and in Houston, same basis, 16c.

Rubber Solvent—This product was likened to hamburger meat last week by one trade spokeman.

"We like to sell other cuts," he said, "but if someone asks for RS we'll put it through the grinder."

Continuing, it was pointed out that rubber solvent comprises but a small part of the solvent business of any major oil company.

Specialty firms in the midwest near the industrial consuming areas supply the lion's share of RS. Their proximity to the markets makes it generally unprofitable for major firms located on the coasts or the Gulf to exploit to any large degree the limited nature of the business.

Present listings for rubber solvent, 115°F-245°F b.r., tankcars, New Jersey and New York, 19c. a gallon, Group 3, 13.875c. a gallon and Houston, 15.5c. a gallon.

Stoddart Solvent—Demand is well sustained as calls from the dry cleaning industry are reaching one of the peak volume periods of the year.

Reason for the current heavy demand is closely associated with the return of the nation's children to school. Fall and winter outfits are being taken out of storage and cleaned in preparation for the resumption of classes this month. In addition, summer slip covers and clothing in volume are being cleaned and stored, a program which the dry cleaning industry has been aggressively promoting in recent years.

Stoddard solvent, tanks, New York and New Jersey is 18c. a gallon, Houston, same basis, 14.75c. and group 3, 12.875c.

Waxes

Production of petroleum-derived waxes in June totaled 462,000 barrels (each barrel equals 280 lbs.), compared with 512,000 barrels in May and 466,000 barrels in June, 1960.

Comparison of the first six months of this year with last shows production ahead in 1960 with 2,887,000 barrels being turned out in January-June as against 2,818,000 barrels last year in the same period.

Imports as usual were low with only 1,000 barrels being recorded, the same figure as listed for May. In the first six months of this year imports were 6,000 barrels as against 77,000 for the same period last year.

Exports scored an increase with 116,000 barrels in June as compared with 109,000 in May and 95,000 in June, 1959. Total for the first half of 1960 is 632,000 barrels, far ahead of the 519,000 barrels recorded in the first half of 1959.

Stocks in June were down to 775,000 barrels. May's figure was 814,000 barrels.

Domestic demand in June was 386,000 barrels, an increase from the 372,000 barrels listed in May and below the 391,000 barrels recorded in June, 1959. Demand for the first six months of 1960 was 2,260,000 barrels, a decrease from the domestic demand of 2,207,000 barrels recorded in the same period in 1959.

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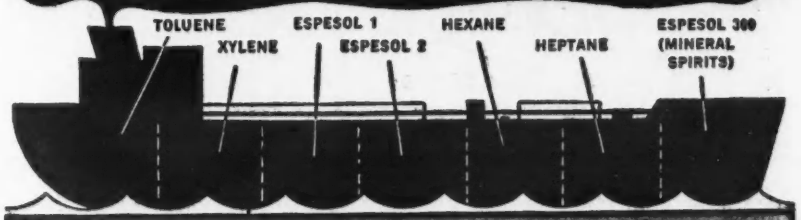

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Essential Oils, Aromatics

The only price changes of the week were among the lime oils. Both Mexican and West Indian material declined 25 cents per pound. Spearmint, rather than declining further as some had predicted, actually firmed. Sandalwood is reported to be stronger and stronger at source. And already shipping prices are as high as spot prices, it was said. Vanilla beans are marking time, as dealers rejoice over the re-election of Tsiranana as president of the Malgache Repu· c (formerly Madagascar). There was some fear that a radical might be elected which might have played havoc with the vanilla bean market.

The following information comes from the Citrus Oils Report of the Agricultural Marketing Service of the Department of Agriculture.

Supplies of fresh grapefruit, always seasonally lighter in summer, are considerably smaller this summer than last.

Most fresh grapefruit in summer come from the California summer crop. This year the summer crop was smaller than a year ago, and movement has been heavy, perhaps induced by the early finish of the Florida season. As usual, the light remaining supplies can be expected to bring the highest prices of the year. The condition of seasonally light supplies and high prices is favorable to imports, which arrive in late summer and early fall, and end as volume movement of the new crop in Florida occurs.

The August 1 condition of the new crop was better than a year ago in all states except Arizona. Conditions in Florida were considered much better than those of the last year.

Remaining supplies of 1959-60 crop lemons are lighter than a year ago but are expected to be sufficient for the usual needs this summer and fall.

Because of increased production in Arizona, the 1959-60 crop is a little larger than the heavy 1958-59 crop. Utilization also is up as a result of early maturity of the lemons. A little more than half of the lemons used to August 1 were processed, the rest used fresh. Although auction market prices for fresh lemons last winter and spring generally were below a year ago, in August they averaged above.

Florida lime production in 1960-61 is expected to total 340,000 boxes, compared with the near-average crop of 320,000 boxes in 1959-60.

Harvest of limes is seasonally heavy during summer and fall.

Grower prices for limes averaged somewhat lower during June and July than in the same months of 1959.

Price Trends

Advanced

None

Reduced

Lime, Mexican, 25c. per lb.
West Indian, 25c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
145.54	145.62	145.90	147.19

For Current Prices see Page 10

Essential Oils

Citronella—The OPD listing remains at the previously quoted $1 per pound, but word around New York is that it is o the way up. One dealer who usually offers material at low prices has upped his listing to $1.05 per pound.

Formosan material remains at $1.05 per pound.

Lemongrass—The market is maintaining a firm tone, according to reports from essential oil dealers here in the New York area.

Lime—Dealers report a weakening in the lime market. From its previously quoted price $5.75 per pound the distilled Mexican material has declined to $5.50 per pound. West Indian material also has declined from $5.75 per pound to $5.50 per pound.

West Indian expressed material, a little-used product, remains at its previous quotation, $7.75 per pound.

Historical records show that the lime tree was known in a semi-wild state on the Atlantic coast before it was planted near Acapulco on the Pacific coast around 1870.

Mexican lime oil, at one time, was considered inferior to material that was produced in the West Indies. But in 1939 a large concern, operating in Colima and Acapulco, built a modern plant and updated its extraction process. Since that time, Mexican lime quality has risen.

In Mexico, the season is greatly influenced by rain and also by irrigation. On irrigated crops, the trees bear throughout the year, but they do not have definite peaks during the rainy season.

In a normal year, the rainy season will last from June to October, on the west coast. Colima's principal fruit period is in July and August whereas Acapulco has two fruiting periods—the first in May and the second in September and October. These also vary with the rains.

The principal fruiting time in Tamaulipas and Vera Cruz is usually in January.

Orange—From the Foreign Commerce Weekly, which is published by the U.S. Department of Commerce, comes the following item.

Summer oranges may be imported into France without quantity restrictions through October 20 this year, instead of September 30, the previous deadline. This information was furnished the Foreign Commerce Weekly by the U.S. Embassy in Paris.

Peppermint—A firm market, peppermint oil is available for the following prices: natural material $4.25 per pound and redistilled material $4.35 per pound.

Sandalwood—Spot prices remain at their previously-quoted level, $22 per pound. It is said that shipping prices on future materials are as much as, and in some cases higher than, spot prices.

There is reported to be very little material on spot.

Spearmint—The price underwent no changes last week. Material continues to be quoted at $3.75 per pound. A good many dealers, however, are getting as much as $4.50 for their material.

Ylang Ylang—Prices continue at their previously quoted range, $7 to $22 per pound.

The price spread is greater than it is for the average essential oil, but quality difference in ylang ylang is great.

Top grade material is used in quality perfumes. Poorer quality material is used in cosmetics and low quality material is suitable for scenting of soaps.

Aromatic Chemicals

Vanillin—Following a rather frantic week of price reductions no one is quite sure how much a pound of vanillin costs. The word as of press time Friday, was that vanillin packaged in 100 pound containers is $2.70 per pound and in 25 pound containers, $2.80 per pound.

These prices apply regardless of the quantities purchased. The previous price had been $3 per pound for 1,000 pound lots, $3.10 per pound for 500 pound lots and $3.25 per pound for 100 pound lots.

Further adjustments are expected during the week. Manufacturers report that the vanilla bean market and the various rulings and proposed rulings from the Food & Drug Administration have not precipitated the price cut. They are strictly for reasons of competition.

Seeds and Spices

Pepper—Considerable weakening was noted in the market last week. Malabar black declined from 57c. per pound to 52c. per pound; Lampong black declined from 56c. per pound to 52c. per pound, and Muntok white declined from 82c. per pound to 80c. per pound.

The following off-beat information about the history of pepper is excerpted from printed sources.

Pepper has been in demand in all the years since, at least, the days of the

Imports Detained at N. Y.

Week Ended August 26, 1960

Black pepper, 10 bags.
Cassia, 9 lots, 1,839 bales.
Chillies, 2 lots, 137 bags.
Ginger, 3 lots, 591 bags.
Mace, 6 lots, 98 cases.
Nutmegs, 5 lots, 353 bags.
Sage leaves, 320 bales.
Sesame seed, 78 bags.

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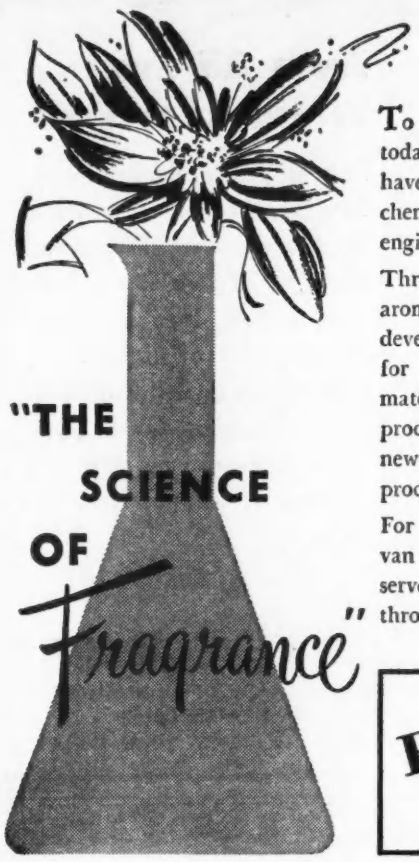

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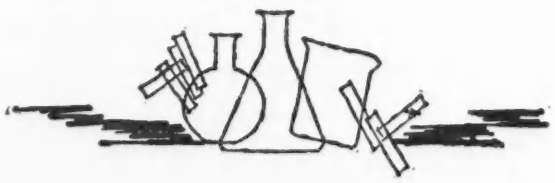

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Essential Oils

ancient Egyptians who used to put a few peppercorns in the tombs along with other choice foods for the dead to eat in the future life.

Besides the pungent taste that people through the ages have liked, pepper has proved to be a useful condiment to camouflage the taste of meat that is no longer fresh.

And, it is a well-known fact that the desire for pepper and other spices is what stimulated world exploration. In the 15th century when Turkey controlled the eastern Mediterranean, and European countries could not get to the pepper producers, they sought other routes.

Columbus didn't find the spices he was looking for, but Vasco de Gama got to Malabar and one of Magellan's ships reached the Spice Islands of the Indies.

The pepper plant is a climbing vine which is native to the Indo-Malayan region. It is not related to sweet or hot peppers.

Black pepper is harvested before it is ripe. The dried berries become dark wrinkled peppercorns that are ground whole.

From the same plant comes white pepper. To get it however, the berry is allowed to get ripe and then the outer shell is removed before the inner parts are ground. White pepper is less pungent than the black, but white is used because it blends better in light sauces and soups.

Vanilla Beans—The market continues quiet with no price changes reported.

Dealers in the New York area report that they are relieved that the president of the Malgache Republic, Tsiranana, has been re-elected by an overwhelming majority and that the policies of the government will remain substantially the same as they were.

Dealers said Tsiranana's opponent, a staunch radical, might have presented a threat to the relative stability of the vanilla bean market.

It is reported that a major source of income for the Republic (formerly Madagascar) is from the export tax on vanilla beans and that for this reason the government is eager that the price maintain a fairly high level.

So that the market will not be flooded and thereby depressed the government has set aside funds to purchase the green beans when they are in over-supply and hold on to them until the market firms.

The following information, from the United States Department of Commerce, is about the importation of vanilla beans.

1959 Imports of Vanilla Beans

Country	*Pounds*	*Dollar Value*
Mexico	290,206	$2,719,644
Panama	882	7,566
L.W. W.W. Islands	5,487	54,355
French West Indies	1,140	9,836
France	14,785	79,503
Indonesia	30,788	235,447
O. Pasia	686	4,961
French Pacific Islands	86,594	610,266
Belgium Congo	1,031	9,340
Seychel	1,601	14,748
British East Africa	5,373	52,461
Madagascar	682,768	6,665,872
Total	1,121,341	$10,463,999

1960 Imports of Vanilla Beans January Through May

Country	*Pounds*	*Dollar Value*
Mexico	9,684	$105,574
France	6,613	64,103
Indonesia	8,741	41,139
French Pacific Islands	1,940	16,187
Madagascar	10,921	144,627
(January—Total)	37,899	$371,630
Mexico	14,650	$187,000
L.W. W.W. Islands	963	12,077
France	3,421	20,348
Indonesia	6,749	21,605
Madagascar	95,008	1,144,963
Other Cty	456	5,036
(February—Total)	122,247	$1,391,029
Mexico	16,914	$133,898
France	3,078	17,868
French Pacific Island	4,410	35,746
Madagascar	148,297	1,809,396
Other Cty	708	6,921
(March—Total)	170,534	$1,980,762
Mexico	20,999	$233,506
French Pacific Island	4,410	20,272
British East Africa	1,607	20,272
Madagascar	117,324	1,572,794
Other Cty	508	5,070
(April—Total)	144,848	$1,867,388
Mexico	27,962	$289,977
France	2,205	12,800
Indonesia	2,338	24,352
British East Africa	1,926	23,790
Madagascar	53,224	659,405
(May—Total)	87,675	$1,010,364

Trade Name Chemicals

—*Continued from page 53*

with production of 498.6 million pounds of alkyl aryl sulfonates in '58, and sales of 467.7 million pounds valued at $74.6 million. Alkyl aryl sulfonates form the largest single category of surfactants.

Armour Chemical Division produces a wide assortment of fatty acids and fatty acid derivatives for virtually every application.

The **"Arquads"** are quaternary ammonium salts derived from fatty acids and used as cationic surface active agents. Also in the surfactant field, Armour produces **"Ethomeens,"** amine-type cationics; **"Ethoduomeens,"** diamine-type cationics; **"Ethomids,"** amide-type nonionics; and **"Ethofats,"** ester-type nonionics. These fat derived nonionic and cationic surfactants are useful as emulsifiers, wetting agents, dispersants and suspending agents as well as detergents.

"Ethomeens" are tertiary amines having one fatty alkyl group (derived from various fatty sources having 12 to 18 carbon atoms) and two polyoxyethylene groups attached to the nitrogen. These products are cationic in nature although by increasing the ethylene oxide content they behave more like nonionics. In common with all of the **"Etho"** chemicals, the polyoxyethylene groups of the **"Ethomeens"** have terminal hydroxyl groups which can be esterified. Esterification of the long chain fatty acids will increase the oil compatibility tendencies of these materials, Armour reports. In **"Ethoduomeens"** the presence of two amine groups increases the cationic nature of the molecule.

A great number of variations are possible with **"Etho"** chemicals as a result of the fact that the fatty chain length, saturation of the chain, length of the polyoxyethylene portion and the group joining the hydrocarbon and ethylene oxide chain can all be varied. This means "tailor made" products for specific applications can be made.

Industrial applications of **"Etho"** chemicals include agricultural chemicals, wax and oil emulsions, leather processing, metal cleaning, rubber processing, and use as rewetting agents and de-inking compounds in the paper industry.

In agricultural chemicals most of the toxicants used as herbicides and insecticides are insoluble in water and are therefore best applied from an emulsion. To save shipping costs it is best to prepare the emulsion at the site of use, and consequently the toxicant, solvent and emulsifier are combined and sold as an emulsifiable concentrate which is mixed with water or diluted further with solvent when ready for use. Careful choice of the emulsifier is necessary to insure ready dispersion of the concentrate in water with a minimum of agitation to form a stable emulsion.

Another source of fatty acids is crude tall oil which is composed of a mixture of rosin and fatty acids produced as a by-product of paper mill operations. The fatty acids are separated from tall oil by fractional distillation. Tall oil fatty acids are made up principally of oleic and linoleic acids in about equal proportion. The production of fatty acids from tall oil has continued to grow since, as a by-product of the kraft pulp industry, tall oil prices are not subject to such fluctuations as are the naturally occurring cottonseed and soybean oils.

Hecules Powder Company produces **"Pamak"** tall oil fatty acids for applications in protective coatings, plasticizers, detergents, asphalt additives and floation.

Primary use of the **"Pamak"** fatty acids is in the protective coatings field where the high percentage of unsaturated acids (oleic and linoleic) contribute good drying characteristics to alkyd resin vehicles. The saturated acids have no drying tendency.

The absence of significant amounts of linolenic acid in tall oil has made possible the production of industrial baking enamels which have good color retention properties. In addition, the development of polyhydroxy materials, resulting in higher molecular weight resins, have given tall oil alkyds added drying power.

The **"Pamak"** fatty acids are also used in concentrating metallic oxide ores and non-metallic ores by flotation. They are used as collectors but have the added advantage of contributing enough froth so that added frothers are not necessary. **"Pamak 4"** and **"15"** are the grades most commonly used for flotation, Hercules reports.

Food Additives Law Posing Problems

—Continued from page 7

rather than in the diet as a whole, and is set not at the maximum safe level but at a level no higher than necessary to achieve the desired technical or other physical effect.

• It fails to specify that calculation of human dietary levels should be on a dry weight basis similar to that employed in the preparation of test diets.

"Failure to take these factors into account," he maintained, "could result in many-fold exaggeration of the assumed 100-fold safety factor for several reasons.

"Namely, laboratory animals consume several times as much food as man in terms of dry weight (or calories) per unit of body weight; foods in which tolerances are established generally constitute only a fraction of the dietary intake, and human diets are composed of foods that collectively consist of approximately two-thirds water."

Dr. Oser proposed that conflicting views on basic toxicological questions be referred to expert committees for guidance in establishing general government policy. Here are some examples on such questions:

Basic Toxicological Questions

• What level of non-digestible oil—such as mineral oil or hydrocarbon-like oils migrating from wax-coated or from plastic wrappers—can be safely tolerated?

• What are the toxicological properties of certain classes of organic compounds and to what extent are they influenced by characteristic groups (for example, mercaptans, allyl, vinyl and cyclohexyl compounds)?

• Can safe levels of certain elements such as cadmium, mercury, chromium, fluorine, selenium or arsenic be established, bearing in mind that some have nutritional value and may be carcinogenic under certain conditions?

• Is it appropriate to regard oxalate deposition in the bladder, or any lesion which under exaggerated experimental conditions may ultimately develop tumors, as "pre-cancerous" even when they are self-limiting or reversible upon removal of the toxic insult?

• Is synergism a sufficiently real, rather than theoretical, possibility at the level of concentration of food additives to demand consideration generally or only in special cases?

The age-old prejudice against arsenic is not supported by modern scientific evidence, Dr. Douglas V. Frost told the nutritional congress.

Arsenicals Are Not Hazardous

Dr. Frost, who is head of nutrition research for Abbott Laboratories, North Chicago, Ill., said multiple-generation studies with both laboratory and farm animals show that the uses of organic arsenicals in medicated feeds present no hazard to public health.

"Animals receiving arsenilic acid show better growth and survival than those fed no arsenilic acid," he said in describing long-term experiments in animals.

For more than a decade arsenilic acid has been used in medicated feeds for billions of poultry and swine, Dr. Frost noted.

"When used as recommended, no ill effects have been reported," he said, "and the economic benefits to farmers, feed manufacturers, and consumers have been substantial. Arsenilic acid protects against various intestinal diseases caused by parasites, thereby saving the lives of thousands of animals each year."

The biochemistry of arsenilic acid itself in medicated feeds provides the greatest assurance of safety to the public, Dr. Frost stated.

"There is an automatic safety feature, since it is biologically impossible to raise the level of arsenic residue in healthy animal tissues above a relatively minute level," he said.

"This averages less than 1 part per million in edible tissue, and is far less than the amount of arsenic naturally present in sea food. Traces of arsenic can be found in all foods. But so little is retained in animal tissue that it can be completely disregarded as a public health risk."

Chemical Sales, Profits Slipped in Second Quarter

Although better than in the first three months of this year, the chemicals and allied products industry sales and profits after taxes slipped during the second quarter behind the level of the same period of 1959, according to the quarterly report of the Federal Trade Commission issued last week.

The commission estimated profits after taxes in the second quarter at $559 million on a sales total for the period of $7,122 million. This compared with profits of $507 million in the first quarter on sales totaling $6,678 million and for the second quarter last year, profits of $607 million on a sales volume of $7,164 million.

Producers of basic chemicals netted profits of $302 million on sales of $3,315 million in the second quarter as compared with profits of $280 million on a sales volume of $3,158 million in the first quarter and profits of $328 million on sales totaling $3,229 million in the second quarter last year.

In the case of the drug manufacturer, their best period was the first quarter. Profits in the second quarter amounted to $86 million on sales of $947 million, while in the first quarter producers had profits of $104 million on sales of $997 million. In the second quarter last year profits were $90 million and sales were $893 million.

Chemical Buyers' Parley

—Continued from page 7

Investor's Viewpoint," Hartman L. Butler of Duff, Anderson & Clark, investment house, and "Progress and Purchasing," J. A. McAleer, consultant to General Electric Company.

The afternoon will be given over to a workshop session emphasizing "Legal Pitfalls in Chemical Buying."

A "mixer" is slated for 5 p.m. on the twenty-sixth, the day preceding the business meeting.

Another and different meeting is planned by the chemical buyers for New York on February 2.

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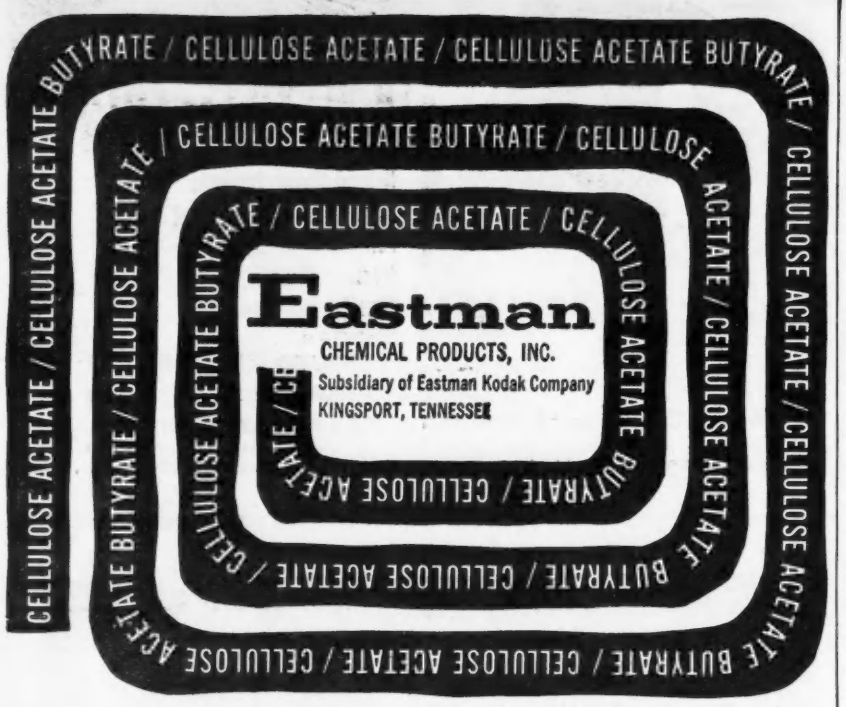
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Coatings Materials

Total sales of paints, varnishes and lacquer took a nosedive during July, reports the Bureau of Census. Factory shipments of paint in July dropped to $159.3 million or 12 percent below June figures and 4 percent below the corresponding month of last year. Total sales to date for the first seven months of 1960 are at an unofficial $725.9 million, lagging behind the record-breaking pace set for the same months in 1959. By July of last year, the unofficial estimates had the sales of paints, varnishes and lacquers over the $1 billion mark, well on its way to its record breaking total of $2 billion. Paint manufacturers had entertained the hope that 1960 would better the record set in '59, but the sales performance to date does not serve to bolster that belief.

Following the price advance of September 1 by one producer of earth colors, other producers this week were reported to be adopting the new advance. Some differences exist between producers schedules and within the various colors themselves. The original advance calls for an additional ¼ cent to 1 cent per pound on some of natural iron oxides, with the synthetic iron oxides being excluded.

In another price movement, one producer of polyvinyl butyral sheeting announced last week price advances of 7.2 to 10 percent on the different grades of the material. Polyvinyl butyral is used in plastic sheet form as an interlayer in the manufacture of shatter-resistant laminated safety glass for automobiles and trucks.

The casein market remained very quiet for the third straight week. Against the lessening interest, the quoations for Argentine casein dropped ½ cent per pound. Latest quote called for 19½ cents per pound. Polish casein was reported at 19¼ cents per pound, and Australian at 22¾ cents per pound. Supplies are reported to be ample. Trade sources look for renewed activity in the casein market by the end of September.

A price reduction on a trade name polystyrene was announced this week. Retroactive to September 1, the producers' announcement calls for a reduction of 16 percent, bringing the price to 48 cents per pound for the sheet form used as a food overwrap.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
103.13	103.16	103.16	103.03

For Current Prices see Page 10

Prime Pigments

Aluminum Paste and Powder—Market conditions continue on the routine side, with prices and supply position of the paste and powders reported to be unchanged from previously established listings.

Carbon Black—While demand for the carbon blacks at the present is down from the rate maintained a few weeks ago, producers report the overall situation as satisfactory. Prices are unchanged, as well as the level of stocks.

Earth Colors—The recent price advances announced last week by one leading producer is reported being adopted by other producers. The increase of ¼c. to 1c. per pound, some producers are advancing the listings on some of the colors at varying increments.

Only the natural iron oxides are reported to be on the advanced column. Excluded from the price hike are the pure iron oxides of black, yellow and red, as well as the synthetic iron oxides and the chrominum reds.

Some of the colors that are reported to be listed are: Metallic brown; burnt siennas; raw umbers and raw siennas.

Ultramarine Blues—Market conditions for this prime pigment is reported to be fairly well situated. Producers report that demand could be better, but the situation presently is satisfactory. Ultramarine blues are widely used throughout industry, but large uses include the coating of both asbestos and asphalt shingles.

Prices for the ultramarine blues are: cobalt type, dry or pulp, 250 lb. bbls., dlvd. E. of the Rockies, 30½c. to 35c. per pound. Jobbing types, bbls., same basis, 16c. to 22½c. per pound. Regular types, same basis, 16c. to 37½c. per pound. Ultramarine blue prices are 1c. per pound higher W. of the Rockies.

Zinc Pigments—With talk of cutbacks in steel requirements of the auto industry, the outlook from that quarter is not particularly impressive. With activity in house painting down as well, the overall picture is about the same.

Industrial finishes took an estimated $60 million in sales in July, as reported by the Bureau of Census. This was a reduction of over $12 million in sales from the previous month's total. Production of industrial finishing paints was down also for the month, as production in July was reported at 24.6 million gallons. For the previous month the total was 30.3 million gallons. For July of last year, production was estimated at 27.8 million gallons and sales at $63.8 million.

Lacquer Materials

Plasticizers — With phthalic supplies still tight, the phthalate esters are reported to be still unchanged from the scarcity imposed by the naphthalene-phthalic supply relationship. Steel's return to normal operating capacity is reported to be subject to further delays as the auto industry requirements for steel seem to be less than it was a year ago.

Napthalene, from the cokeovens, remains the sore spot in the supply situation of the phthalate esters. Dependent on the cokeovens for naphthalene, and with a time lag existing in the programmed operation of the new petroleum naphthalene plants, the next six months could be trying on the plasticizer producers' efforts to meet anything more than contract customers.

Miscellaneous

Casein—The market for Argentine casein continued to be very quiet with prices reported to off against the lessened interest. Current quotation for Argentine casein around 19½c. per pound, off a ½c. per pound from last week.

Polish is being quoted at 19¼c. per pound, and Australian at 22¾c. per pound. The reduced activity of the market is reported to be normal for this time of the year. The post-Labor Day weeks should bring renewed vigor back to the market. With the start of the new production season in the Argentine, supplies of that form of casein is reported to be ample.

Animal Glue—Production of glue in July totaled 6,307,000 pounds, down from the 8,960,000 pounds reported for June, and below that reported for the same month last year, according to the Bureau of Census.

Shipments of glue during July totaled 6,019,000 pounds, about a million pounds below the previous month when 7,886,000 pounds were shipped. Shipments for July,

Coatings Shipments Output: July

	Factory Shipments Dollars		Reported productions Gallons*	
	July	June	July	June
Trade sales	$93,300,000	$109,600,000	30,600,000	34,100,000
Industrial sales, total	60,000,000	72,200,000	24,600,000	30,300,000
Paint and varnish	45,000,000	54,300,000	18,700,000	22,700,000
Lacquer	15,000,000	17,900,000	5,900,000	7,600,000
Overall totals	159,300,000	181,800,000	55,200,000	64,400,000
Totals sales Jan.-July:	$725,900,600.			

* Estimated total production. About 2 percent of this total was imputed for companies that reported only dollar sales.

1959 were reported at 8,420,000 pounds.

Stocks at the end of July totaled 37,145,000 pounds, as against the 36,857,000 pounds reported for June and 31,049,000 pounds estimated for the end of July last year.

Total hide glue production was estimated at 2,635,000 pounds for July, with home glue production at 3,672,000 pounds. In both cases output of both types of glue was reported by the Bureau of Census as below both June and July of last year.

Gypsum—To meet the requirements of the building industry, the domestic gypsum industry reached a new high in the output of crude gypsum in 1959, according to producers' reports to the Bureau of Mines.

Domestic mines produced 10.9 million short tons of gypsum in 1959, or 15 percent above that mined in 1958. The production rate was the highest during the second and third quarters. Over half of the crude gypsum output from Iowa and Texas and about one-third of the output in Michigan was calcined, while more than half of that produced in California was sold for agricultural purposes. The 67 mines operated comprised 50 open pit, 15 underground, and 2 combined open-pit-underground. Sixty plants having 271 kettles and other pieces of calcining equipment produced calcined gypsum from domestic and imported ores. Calcined gypsum produced in 1959 totaled 9.3 million tons, an increase of 14 percent above 1958.

Most building products consumed, particularly the high-value prefabricated materials used in residential building industry. Though activity in several segments of the industry fluctuated during the year, most gypsum products were being consumed in near-record quantities by the close of 1959. Producers reported that their stocks of crude gypsum on hand December 31, 1959, totaled 2.5 million short tons compared with 2.2 million tons at the end of 1958.

The average value of crude gypsum mined in the US was $3.59 per ton compared with $3.38 in 1958 and $3.25 in 1957. Portland cement retarder was $4.24 per ton, while the average value of agricultural gypsum was $3.09 per ton. Industrial plasters declined 3 percent in average value. Building plasters and prefabricated gypsum products increased 2 percent in average value.

Imports of crude gypsum increased 52 percent from the 4.0 million short tons in 1958 to 6.1 million short tons in 1959. Canada supplied 4.9 million pounds, or 29 percent of the total US imports.

Lead Naphthenate—Prices have been unchanged since January, 1958. Current listings are reported to be steady, with little possibility of any changes. Business conditions for the lead naphthalenates and tallates are reported to be routine.

Zircon—Normal demand from the ceramic industry, and other glassware industries is reported from trade sources. Traditional use for zircon has been as an abrasive, but relatively new uses in the manufacture of chemical stoneware and electrical connections are reported providing ample outlets for zircon supplies. Prices hold unchanged from their long-standing listings.

Naval Stores

Pine Gum—The average commercial crude gum price per barrel for the week ended August 27 was $42.50. The previous week saw $41.70 paid per standard barrel, with $28.90 reported for a year ago.

The volume of gum deliveries was 19,300 barrels, including 93 loan for the week ended September 2. For the previous week deliveries totaled 19,900 with 122 loans. For a year ago, 18,545 deliveries were reported, including 205 loan.

The average barrel content of turpentine was 10.7 gallons with rosin content set at 299.3 pounds. Gum grading was: 51 WW; L9 WG; 12 N; and 18 M. The weekly weighted averages for gum was: WG, $16.81 with no averages reported for WW, N, M, or K. The weekly weighted average for turpentine was 45 8/10c.

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. Sept. 2	Mon. Sept. 5	Tues. Sept. 6	Wed. Sept. 7	Thurs. Sept. 8
Drums—					
N	...	...	...	$16.75	...
WG	$16.85	...	...	...	...
WW	17.00	...	$17.00	...	...
Bags—					
WW	...	...	...	17.30	...
Tankcars (for week ended Sept. 9)—					
WG, and below, $15.60					
Sales, USDA	5‡		3‡	209*	...

New York
(Per 100 lbs., c.l., Friday)
K-M, $17.75; N, $17.85; WG, $18.10; WW, $18.25

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	...	...	45½	45½§	...
Sales	...	...	8,000¶	22,000¶	...

* Drums equivalent. ‡ Carlots. ¶ Gallons.
§ Average price.

Sun Chemical Expands In Plastic Package Field

Sun Chemical Company has acquired Dyna-Foam Corporation, a producer of thermoplastic products, and Artistic Manufacturing Company, a packaging materials manufacturer.

The company has also organized a packaging materials group under direction of Eugene Jacobson, newly-elected Sun vice-president. Artistic Manufacturing Co., located in Stamford, Conn., produces decorating and packaging materials and sells to more than 15,000 retail outlets. Dyna-Foam is based in Ellenville, N. Y.

Philips Vaccine

—*Continued from page 4*

be administered by injection, nose drops or aerosol spray.

Philips says it will file an application with the Public Health Service to produce the serum for national distribution. Other pharmaceutical houses will be licensed to produce it, the company adds.

Contending that measles is a vastly underrated disease, Philips points out that reported cases of the ailment reached 750,000 in 1958 and resulted in more than 400 measles-related deaths. During the same period polio-related deaths were less than 200.

Philips' activities in the drug business got an additional boost last week when the company, through its Philips Roxane subsidiary, acquired Chemico Laboratories, Inc., of Miami, Fla., a maker of prescription drugs.

The acquisition involved an undisclosed amount of cash.

A spokesman for Philips says the company will put initial emphasis on Chemico's "Reticulose," a drug reportedly effective against a number of virus-caused diseases.

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Oils, Fats and Waxes

Buying interest for oils and fats last week continued spotty, chiefly for prompt needs. Edible oils remained steady, reflecting the firmness of soybean oil. Peanut oil was sold at an advance of ½ cent per pound and corn oil, ¼ cent, while cottonseed oil was unchanged. Slow demand for crude coconut oil and increased offers weakened the market and prices were off ¼ cent per pound reaching the lowest level since August, 1957. Light sales took place at New York at unchanged quotations for nearby delivery due chiefly to the Pennsylvania Railroad strike. Copra was easy and slightly lower. Refined deodorized coconut oil also dropped 2 cents to 2½ cents per pound.

Coconut oil acids were reduced because of the lower cost of oil. Prices were reduced 1½ cents per pound for coconut fatty, capric, caprylic, lauric and myristic acids.

Consumers stepped up the call for some industrial oils against former orders while new business was still limited. Linseed and oiticica oils moved in better volume against contracts. Continued slow demand for tung oil further unsettled this market and prices were off at least ¼ cent for prompt delivery. Offers of Brazilian castor oil also were freer at the recent decline of ¼ cent. Domestic and export buyers showed little interest in crude menhaden oil. Large inventories of fish scrap and meal in producers hands has caused a reduction in fishing operations.

Tight supply of soybean meal for prompt delivery has been accentuated by the scarcity of soybeans for crushing. Meal prices were stronger and $1.50 per ton higher. Linseed meal was inactive and off 50 cents to $1 per ton. New crop cottonseed meal was scarce and firmer, up $2 per ton.

Price Trends

Advanced

Corn oil, crude, ⅝c. per lb.
Refd., ⅜c. per lb.
Cottonseed meal, $2 per ton.
Grease, choice white, ¼c. per lb.
Peanut oil, crude, ½c. per lb.
Refd., ½c. per lb.
Soybean meal, $1 per ton.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.

Reduced

Caprie acid, 1½c. per lb.
Caprylic acid, 1½c. per lb.
Castor oil, No. 1, Braz., ¼c. per lb.
Coconut fatty acid, 1½c. per lb.
Lauric acid, 1½c. per lb.
Linseed meal, 50c. to $1 per ton.
Myristic acid, 1½c. per lb.
Coconut oil, crude, ¼c. per lb.
Coconut oil, refd., deod., 2c. to 2½c. per lb.
Copra, $2.50 per ton.
Lard, cash, ⅛c. per lb.
Tung oil, ¼c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Sept. 11, 1959
109.87	108.93	107.54	111.70

For Current Prices see Page 10

Vegetable Oils

Castor—Consumer interest was restricted to actual needs. No. 1 Brazilian oil was unchanged at 18¾c. per pound, tankcars, New York, prompt delivery. Domestic oil was quiet and held at unchanged quotations.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	.....	1,916,000
Previous week	.....	500,000
Corresponding week, 1959	.....	1,800,000
Total this year	3,342,500	64,170,000
Corresponding period, 1959	18,852,850	67,132,000

Coconut—Market was unsettled because of slow demand and freer offerings. Crude was lower at 12c. per pound, tankcars, f.o.b. Pacific coast for prompt shipment. The New York market was quiet. Tankcars declined to 14¼c., per pound, prompt delivery. Deodorized refined oil was lower, ranging from 19½c. to 20½c. per pound, drums, New York depending upon quantity. Coconut fatty acids, lauric, capric, caprylic and myristic acids were reduced 1½c. per pound.

Corn—Trading was light. Crude was firmer and sold at 12⅜c. tankcars, f.o.b. mills, prompt shipment. Refined oil was higher at 16.10c. tankcars, New York, prompt delivery.

Cottonseed—Futures remained on a steady basis, on the New York Produce Exchange reflecting the strength of soybeans and oil markets last week. Prices scored fractional gains. Trading was moderate and mixed, chiefly professional. No September tenders have been issued to date. Cash oil was quiet, but steady. Refined salad was unchanged at 12¾c. per pound, tankcars, New York, prompt delivery.

Trading in crude cottonseed oil was moderate. Production is gradually improving. Prices were steady ranging from 9½c. to 9⅝c. per pound, tankcars, f.o.b. mills, September through December shipment throughout the belt.

The government cotton report, September 1 estimated the crop at 14,581,000 bales, compared with the August 1 forecast of 14,471,000 bales and the 1959 production of 14,558,000 bales.

Peanut—Crude was scarce and firmer with sales at 15¾c. per pound, tankcars, f.o.b. mills, prompt and 16c. asked. Refined oil was raised to 19c., tankcars, prompt, New York basis.

Peanut crop of Sept. 1 was estimated at 1,688,075,000 pounds by the Department of Agriculture. This compared with the 1959 production of 1,592,295,000 pounds. Yield per acre was placed at 1,207 pounds compared with 1,096 pounds last year.

Soybean—Higher soybeans and better demand stiffened the market. Crude was advanced to 9¼c. per pound, tankcars, tankcars, f.o.b. Decatur, unrestricted, September delivery. Refined salad was higher at 11¼c., tankcars, New York basis.

Soybean crop was indicated Sept. 1 at 566,336,000 bushels by Department of Agriculture against 1959 production of 537,895,000 bushels. Yield per acre was indicated at 24 pounds, the same as last year.

Tung—Continued quiet business kept this market unsettled. Tankcars were quoted at 22¾c. per pound, New York, prompt delivery. Drums ranged from 21¼c. spot, according to quantity.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, September 9, follow:

	Sales	High	Low	Close
		Cents per Pound		
Sept.	104	11.73	11.56	11.68S
Oct.	85	11.62	11.55	11.55S
Dec.	91	11.58	11.42	11.53S
March	112	11.68	11.53	11.64S
May	125	11.68	11.55	11.64@11.65
July	53	11.68	11.58	11.64@11.67

Total sales and switches, 570 contracts.

Miscellaneous

Cocoa Butter—Trading was spotty. Stocks on spot ranged from 58c. to 63c. per pound, according to quantity.

Copra—Shipments were easy and slightly lower. Prompt shipment was quoted at $165 per ton, c.i.f. Pacific coast, with bids $2.50 less.

Flaxseed—Cash flaxseed held firm and unchanged through the crest of 1960-crop bookings, bids at $3 a bushel, spot and to-arrive, basis Minneapolis. Renewed export interest helped bolster the market. Bookings on a to-arrive basis, reached a peak in the initial rush of the crop year, totaling 218 cars and nearly 600,000 bushels in roundlots. Trades in the spot market amounted to only 19 cars, great bulk of arrivals applying on previous contracts. Hot, dry weather speeded harvesting in later maturing areas.

Flaxseed production was estimated Sept. 1 at 29,937,000 bushels by the Department of Agriculture against 1959 production of 22,709,000 bushels. Yield per acre was placed at 8.9 bushels compared with 7.3 bushels last year.

Fats and Greases

Greases—While trading was spotty, the market was unchanged and fairly steady. Choice white was firmer and raised to 7¼ to 7⅜. per pound tankcars, delivered and yellow at 4⅞c., same basis.

Lard—The market was dull. Cash lard was lower at 10.10c. per pound, drums, Chicago.

Tallow—Trading was moderate chiefly in the better grades for October delivery. Prices were without change and steady. Bleached fancy was held at 5¾c. per pound, tankcars, delivered; prime, 5½c.; special, 5¼c.; guaranteed fancy, 6c. and No. 1, 4⅞c., same basis. Export business was reported light. Guaranteed fancy was

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Oils and Fats: July

Following statistics are compiled by the Bureau of Census covering oils and fats production, consumption and factory and warehouse stocks in July, 1960 (in millions of pounds).

	Cottonseed Oil	Soybean Oil	Corn Oil	Peanut Oil	Lard	Edible Tallow
Production:						
Crude oils	51.3	350.9	27.7	[1]7.5	[1]166.0	24.3
Refined oils (once-refined)[2]	46.9	238.5	24.3	5.2	XXX	XXX
Consumption in refining[2]	49.9	250.0	27.0	5.6	XXX	XXX
Consumption in selected edible and inedible products, total[3]	86.9	245.5	24.4	3.7	37.3	21.7
Consumption in edible products, total	86.5	227.6	24.3	3.4	36.3	20.9
Stocks, end of month, total[3]	289.4	450.5	42.6	14.1	128.9	23.0
Crude oils	46.5	271.1	26.4	8.8	XXX	XXX
Refined oils	242.9	179.4	16.2	5.3	XXX	XXX

Note: Total consumption of oils in each product may exceed sum of detail since only major edible oils are shown separately.

[1] Source: U. S. Department of Agriculture. Lard production represents quantities rendered.

[2] Production of refined oils covers only once-refined oil. Degummed soyban oil is reported as crude oil.

[3] Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process" (e.g. refined cottonseed includes stocks of stearin).

	Coconut Oil	Linseed Oil	Inedible Tallow & Grease	Tall Oil	Vegetable Foots
Production:					
Crude	44.7	[1]15.8	[2]233.9	53.4	16.5
Refined (once-refined)[3]	27.3	(NA)	XXX	[8]12.3	XXX
Consumed in refining[3]	29.8	15.2	XXX	[8](D)	XXX
Consumption in selected edible and inedible products, total[4]	[5]35.7	32.4	117.3	60.0	8.2
Consumption in inedible products, total	22.3	32.4	117.3	60.0	8.2
Soap	7.8		44.4	1.9	1.5
Paint or varnish	(D)	25.5		1.5	(D)
Fatty acids	4.1	0.4	12.9	[8]50.1	4.6
Feed	...	...	37.3	...	(D)
Linoleum	...	1.4	...	(D)	...
Resins and plastics	0.3	2.0	...	(D)	...
Lubricants and similar oils	(D)	0.4	5.2	1.1	(D)
Other inedible products	9.9	2.7	11.3	4.4	0.7
Stocks[4]	[9]322.4	[6]74.6	301.1	135.7	48.6
Crude oils	[9]306.9	[6]42.8	XXX	120.6	XXX
Refined oils	[9]15.5	[7]31.8	XXX	15.1	XXX

[8] Revised.

D—Withheld to avoid disclosing figures for individual companies.

NA—Not available.

[1] Raw linseed oil only.

[2] Quantities rendered.

[3] Production of refined covers only once-refined oils.

[4] Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process." Stocks of palm, crude castor and sperm oil are on a commercial stocks basis; and do not include stockpile of strategic oils.

[5] Includes following amounts consumed as crude in July and June respectively: 10.0 and [8]18.7.

[6] Includes raw and boiled linseed oil.

[7] Includes linseed oil other than raw and boiled.

[8] The use of whole or crude tall oil in the distillation or fractionation process is reported as consumed in "Fatty Acids"; the use in the acid refining process is reported as consumed in "Refining." The production of refined tall oil includes the output of acid refined tall oil and distilled tall oil (containing less than 90% free fatty acids not including rosin acids).

[9] Includes General Services Administration stocks which are no longer required for the strategic stockpile. Months prior to April, 1960, stocks were on a commercial basis only.

	Castor Oil	Tung Oil	Palm Oil	Palm Kernel Oil	Fish Oil Incl. Mammal Oil Other Than Sperm	Sperm Oil
Production:						
Crude	(D)	...	XXX	...	[1]26.6	[1] ...
Refined (once-refined)[3]	XXX	XXX	XXX	3.2	XXX	XXX
Consumed in refining[2]	XXX	XXX	XXX	3.7	XXX	XXX
Consumption in selected edible and inedible products, total[3]	8.5	3.3	4.4	4.5	4.4	3.5
Consumption in edible products	(D)		(D)	(D)		
Consumption in inedible products	(D)	3.2	(D)	(D)	4.4	3.5
Stocks (crude and refined)[3]	25.8	48.6	21.9	12.2	53.2	33.2

[8] Revised.

D: Withheld to avoid disclosing figures for individual companies.

[1] Source: Fish and Wildlife Service, U. S. Dept. of Interior.

[2] Production of refined, covers once-refined oils.

[3] Includes hydrogenated fats and other fats and oils "in process." Stocks of palm, crude castor and sperm oil are on a commercial basis; and do not include stockpile of strategic oils.

Oils, Fats and Waxes

quoted at 6¼c. per pound, bulk, f.o.b. and 1c. higher for drums, f.a.s.

Cake and Meal

Cottonseed Meal—Good demand for meal and light production thus far stiffened the market. Trading was fairly active. Meal 41 percent was higher at $57 per ton, sacked, Mississippi Valley and $58, Georgia-Caroline area for September-December shipment.

Linseed Meal—This market weakened under pressure of surpluses for nearby delivery. Prices declined 50c. to $1 a ton. Formula feed manufacturers held purchases to nearby requirements, complaining of continued lag in feed business. Active export programs checked further declines. Withdrawals against existing contracts were at a slower rate, crushers looking for directions. Extracted meal, 34 percent protein, was quoted $51.50 a ton, bulk, in carlots, f.o.b., Minneapolis, for prompt delivery; $52.50, last week of September, and $53, October-December. Old process expeller meal was $1 lower at $57.50 for September, $58.50, October, and $59.50, November-December.

Peanut Meal—Stocks were practically exhausted and market was entirely nominal around $58 per ton, sacked, Georgia-Alabama area. Trading was at a standstill.

Soybean Meal — Pronounced strength again prevailed in this market, prices in several areas reaching new highs of many months. Shortage of local soybeans strengthened Minneapolis market and curtailed production was important factor in other areas. Formula fed manufactures held purchases to nearby requirements. Meal for unrestricted billing was $1 higher, other markets up to $2. Meal, 44 percent protein, was quoted $55 a ton, unrestricted, bulk, Decatur, for promt shipment.

Waxes, Vegetable

Outside of a light demand for actual needs, the vegetable wax market was dull and featureless last week. Carnauba grades were fairly steady, except for good sized lots which were moved at concessions. No. 3 North country Ceara ranged from 72c. to 73c. per pound, and Parnahyba, 73c. to 74., spot, according to quantity. No. 1 Ceara yellow was unchanged at $1 to $1.02 per pound, spot and Parnahyba, 1c. more.

Crude beeswax continued strong because scarcity of stocks here and for replacement from primary sources. African crude was maintained at 52c. to 53c. per pound, prompt delivery. Brazilian and Chilean ranged from 55c. to 56c., same basis. Refined grades were unchanged and steady.

Candellila wax was quiet and unchanged. Crude was quoted at 55c. to 56c. per pound, spot and refined pure 60c. to 62c., same basis.

Ouricury was inactive. Crude was available at 51c. to 52c., spot as to quantity and refined pure, 58c. to 60c.

Drug Industry Gets News

—Continued from page 3

ment that all prescriptions for drugs use the generic names rather than the trade names. This will create competition, he adds, and in that way keep prices down.

So far, however, he hasn't been able to convince either the doctors or the drug manufacturers of the wisdom of such a move.

The hearings begun last week on antibiotics were the fourth of the "product" hearings held by the investigating group. Previously, there have been hearings on the steroid hormones, tranquilizers, and oral anti-diabetics.

In addition, the committee has held three sessions concerning general aspects of the industry. At one of these hearings, Dr. Austin Smith, president of the Pharmaceutical Manufacturers Association, testified for several days and another session concerned itself with the question of generic names versus tradenames.

The committee also delved into the activities of Dr. Henry Welch, who was forced to resign his post as director of the FDA's antibiotics division, because his outside editorial work for several medical journals raised questions of a conflict of interest.

ACC&CE Plans to Study Science Role in Advertising

Association of Consulting Chemists & Chemical Engineers has slated a panel on "The Role of Science in Advertising" to replace the previously-announced "Consultants Outside USA" at its October 25 meeting. The symposium will be held at the Shelburne hotel in New York.

The topic will be explored by panelists Earl W. Kintner, chairman of the Fedral Trade Commission; Kenneth B. Willson, president of the National Better Business Bureau; S. R. Bernstein, editorial director of *Advertising Age*, and others to be announced later. Dr. Erwin Di Cyan, past president of the association, will be moderator. Reservations may be made through association headquarters in New York.

American Cyanamid Offers Lactronitrile on Pilot Scale

Lactonitrile, a bifunctional chemical said to have potential as a selective solvent and as an intermediate, is now available in development quantities from the petrochemicals department of American Cyanamid Company.

The material is described as a solvent for olefinic hydrocarbons having unique solvent characteristics. It is said to be a useful tool for the vapor-phase separation of hydrocarbon mixtures of narrow boiling-point range. Products that can be prepared from it include lactic acid, ethyl lactate, 5-methylhydantoin, and 1-cyanoethyl vinyl ether.

Blackstrap Antitrust Cases

—*Continued from page 3*

affiliates of Southwestern—Industrial Molasses Corporation, Leonia, N. J., and Benjamin H. Ticknor, and Albert A. Teeter, jr., and John P. Manard, president, vice-president, and vice-president, respectively, and National Molasses Company, Oreland, Pa., and Joshua Epstein, Samuel G. Fisher, Joseph M. Rubenstone, and Sidney M. Cohen, president, vice-president, vice-president, and secretary-treasurer, respectively.

Other parties subject to the order are: Czarnikow Rionda Company, New York; George A. Braga and Joseph B. Clifford, president and assistant secretary, respectively; and E. J. Kramer, former manager, molasses department.

J. H. Leftwich & Co., Mobile, Ala., and J. H. Feltwich and Frank M. Hicks, jr., president and vice-president, respectively.

Molasses Trading Company, Corpus Christi, Tex., a subsidiary of Czarnikow and Leftwich; J. H. Leftwich and Frank M. Hicks, jr., president and vice-president, respectively; and Harold Fink, E. J. Kramer, and R. L. McCauley, formerly comptroller, assistant vice-president, and sales manager, respectively.

Lutz H. Frieler and Stanley J. Posner, employees of Southwestern.

Thomas P. Gallagher, formerly the principal officer of another concern cited in the FTC's complaint of April 1, 1959, New Mexico Timber Company, Albuquerque, N. Mex.

Peter G. Berdeshevsky, a former officer of Southwesteern, Molasses Products, Standard, and Imperial.

The complaint was dismissed as to New Mexico Timber Company and a Mexican subsidiary of Southwestern. Campania de Mieles de Mexico. All of the former's operating assets were sold, effective February 28, 1959, and since then its only business has been transactions in securities; previously its blackstrap molasses activities were incidental to its main business of cutting and selling timber. The latter has sold its business assets and is now in the process of liquidation.

Commission Dismisses Charges

The charges also were dismissed as to Abram I. Kaplan, deceased, formerly an official of Southwestern, Molasses Products, Standard, Imperial, and the Mexican subsidiary.

In taking this action, the Commission adopted an initial decision by Hearing Examiner John Lewis based on an order agreed to both by the respondents and the FTC's Bureau of Litigation.

The complaint charged that Southwestern, Czarnikow, J. H. Leftwich, New Mexico Timber, Molasses Trading, Molasses Products, and Standard Molasses conspired in fixing identical delivered prices, coercing competitor-customers to abide by them, boycotting competitors not adhering to these fixed prices, dividing territories and accounts among themselves, and designating one of their number to be the sole bidder on available supplies.

Other principal allegations were that Southwestern, Industrial, National, Molasses Products and Imperial carried out the unlawful price-fixing and division-of-market activities through "Midwestern Terminals," a joint operation ostensibly formed for legitimate purposes; and that Southwestern and the Mexican subsidiary conspired to prevent a domestic competitor of the parent from buying blackstrap molasses in Mexico.

The respondents' agreements to discontinue these and similar practices are for settlement purposes only and do not constitute admissions that they have violated the law.

Drug Sales Good

—*Continued from page 7*

estimated by the investment experts for domestic pharmaceutical sales in 1960.

Despite pressure on profit margins from lower prices on bulk pharmaceuticals and possible year-end foreign exchange write-offs, S&P expects earnings in 1960 to keep pace with sales and in many instances do better.

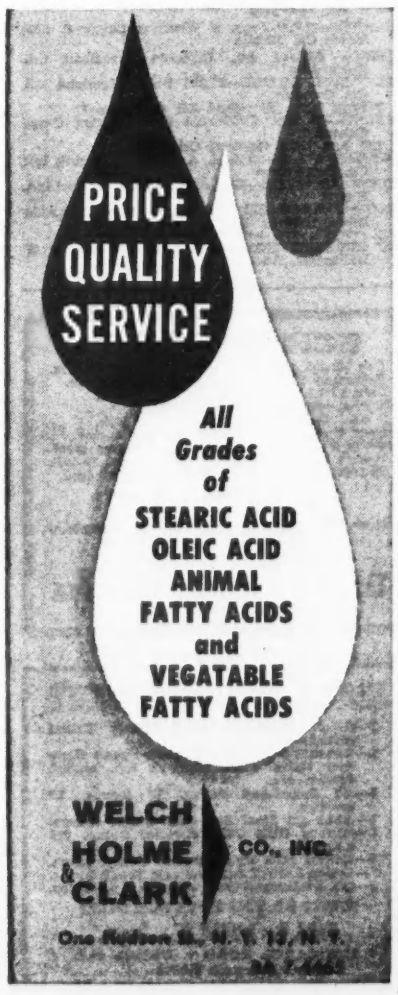
Top proprietary makers should do particularly well this year, according to the analysis, but prospects for the large ethical houses are deemed less favorable, principally because of weakness in prices of vitamins, antibiotics, steroids, and other bulk drugs. And tranquilizer drugs by three leading makers are faced with strong competition from "Librium," a new drug available from a Swiss-based firm.

At the moment, only a single firm—Mead Johnson & Co.—whose "Metrecal" weight-reducing powder is rolling up an amazing first-year sales record, is upholding the ethical industry's reputation for rapid growth, says S&P.

"However, over the long term," the report continues, "such firms as Merck and Upjohn must be respected for their eminent research and technical sales forces; and American Home Products Corporation (primarily proprietary) is second to none in marketing ability."

Turning to new products, S&P notes that the calendar for the second half of 1960 is relatively inactive, and that interest will center on following the market reception of recent new introductions. Here's what S&P has to say about them:

- "Vick Chemical Company's anti-cholesterol drug, 'MER-29,' is in distribution and should prove a good indicator of the market potential for cholesterol drugs."
- "Mead Johnson is marketing a new antihistamine tradenamed 'Tacaryl' which could make important inroads into the $100 million anti-alleregy market."
- "'Envovid,' a steroid hormone produced by G. D. Searle & Co. since 1957, recently received FDA clearance for prescription use as an oral contraceptive."
- "'Librium,' an important broad-spectrum tranquilizer, was introduced this year by Hoffmann-La Roche, Inc., a Swiss-based firm."



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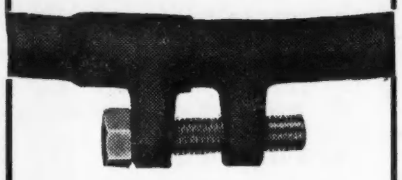

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FEEDERS—4¼"x24", 24"x72" Syntron S/S—Draver controlled rate, Hardinge Constant Weight.

AIR CLASSIFIERS—Gayco 30"—Sturtevant 36"—Gayco 5', all w/motor drives.

KETTLES—24x30 S/S 125 PSI, Jacket 75 PSI—S/S lined 150 gal. 40 PSI, Jacket 75 PSI.

LAWLER COMPANY
LAWLER PLACE METUCHEN, N. J.
LIBERTY 9-0245

PROCESS EQUIPMENT DIVISION

Raymond #3036 High Side 3 Roll Mill.
Link Belt 502-16 Roto Louvre Dryer.
Al. Chalmers 8' x 60' x 5/16" Welded Kiln.
1000 to 170 sq. ft. S.S. Tubular Condensers.
3500 to 236 sq. ft. Adm. Tubular Condensers.
2330 to 308 sq. ft. Cu. Ni. Tube Condensers.
Buflovak Vacuum Shelf Dryer 18 Shelves.
Buflovak 42" x 120" Atmos. Double Drum Dryers.
40" S.S., Rubber Covered Steel Centrifuges.
Sharples C27 Super-D-Hydrators Vaportite.
Shriver C. I. 30" P&F Filter Presses.
30 gal. 316 S.S. Jkt. Autoclave, 1000 PSI.
Nooter 750 gal. Steel Reactor, 300 PSI.
Sweetland #12, #10, #7 Pressure Filters.
100, 75 & 50 gal. S.S. Tanks & Receivers.
6500, 3000, 1500 gal. Haveg Tanks.
Stainless Porcelain; Glass Valves ¾" to 4".
Tantalum Heater Tubes 2" x 5½', 130 PSI.

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HEAT & POWER CO. INC.
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310 Thompson Bldg., Tulsa 3, Okla.

WIRE US COLLECT!

Raymond 5'6" Double Whizzer Air Separator. 7½ HP Motor.

A. O. Smith 8'6" x 9'6" long Stainless Horizontal, Agit. Reactor. 250 PSI.

New 8225 gal. 10' x 14' Rubber Lined Closed Tank. ⅜" shell, ½" heads.

Bates Valve Bag Packer. 3 spout auto. Complete with motors and conveyors.

Rotary Kiln 4' x 35'. New Brick lining. Fire head on rails.

Downington Iron Works 5000 gal. vert. jcktd. agit. Mixing Tank w/Mtrs.

Patterson 4' x 5' jcktd. Ball Mill with 10 HP Ex proof Motor.

Sweetland #7 Filter. 20 bot. drain lvs. on 4" centers. Vert. site glasses.

For immediate quote, wire or phone collect—GA 1-1380

ME MACHINERY AND EQUIPMENT COMPANY
129 Townsend St. · San Francisco 7, California

Imports at US Ports

—Continued from page 60

NAPHTHALENE—1,314 bgs, Gallard Schlesinger, Antwerp
1,262 bgs, Ore & Ferro Corp, Durban
556 bgs, Antwerp
NICOTINAMIDE—24 dms, Fallek Products Co, Genoa
NICOTINIC ACID—40 dms, Fallek Products Co, Genoa
NUTMEG—70 bgs, K H Landes & Co, Singapore
140 bgs, Dodge & Olcott, Singapore
24 bgs, Gillespie & Co, Trinidad
20 bgs, A G Dunn, Trinidad
OAKMOSS—59 bls, Givaudan Corp, Casablanca
OLIBANUM GUM—50 bgs, Genoa
OLIVE OIL—100 dms, Manufacturers Trust Co, Seville
ORANGE OIL—1 dm, Citrus & Allied Essential Oils Co, Puerto Plata
OREGANO LEAVES—204 bgs, M J Golombeck, Piraeus
ORRIS ROOT—100 bgs, W F Mahneke, Rijeka
PALMKERNEL OIL—300 tons, Procter & Gamble Co, Rotterdam
893 cs, B M T Commodity Corp, Rotterdam
PATCHOULI LEAVES—4 bls, S B Penick & Co, Singapore
PATCHOULI OIL—27 cs, Chase Manhattan Bank, Penang
13 dms, International Flavors & Fragrances Inc, Penang
PEATMOSS—1,000 bls, Ascot Peatmoss Corp, Hamburg
2,000 bls, E J Lang, Hamburg
6,200 bls, Garden Supply Co, Bremen
2,200 bls, E Dunwoody, Bremen
2,000 bls, E J Lang, Bremen
2,750 bls, Premier Peatmoss Corp, Bremen
500 bls, Bruco Peatmoss Corp, Bremen
750 bls, S Davis Co, Bremen
3,500 bls, Premier Peatmoss Corp, Gdynia
PEPPER, BLACK—80 bgs, Polak Trading Co, Singapore
175 bgs, Ludwig Mueller, Singapore
2,380 bgs, P H Petry, Singapore
560 bgs, A G Dunn, Singapore
70 bgs, J H Elton, Singapore
2,980 bgs, Singapore
600 bgs, Belem-Para
PEPPER, RED—78 bgs, Mombasa
PEPPER ,WHITE—70 bgs, Singapore
PERCHLOROETHYLENE—125 dms, International Selling Corp, Marseille
PETROLEUM, CRUDE—217,550 bbls, Pure Oil Co, Maracaibo
151,106 bbls, Phillips Petroleum Co, La Salina
142,192 bbls, Hess Inc, Bachaquero
PHENACETIN—4 kgs, Copenhagen
PHENOBARBITAL—20 cs, Frank Samuel & Co, Rotterdam
PHTHALIC ANHYDRIDE—700 bgs, International Chemical Corp, Southampton
POPPYSEED—100 bgs, Sokol & Co, Rotterdam
150 bgs, Hoger Co, Rotterdam
1,350 bgs, Izmir
POTATO STARCH—100 bgs, W Westergaard, Copenhagen
PSYLLIUM SEED, HUSKS—331 bgs, Meer Corp, Bombay
PYRETHRUM EXTRACT—30 dms, Liverpool
PYRETHRUM FLOWERS—110 bls, P H Petry, Puna
QUEBRACHO EXTRACT—517 bgs, Barkey Importing Co, Buenos Aires
QUINIDINE SULFATE—42 dms, Lo Curto & Funk, Hamburg
QUININE SULFATE—9 kgs, Frank Samuel & Co, Southampton
RAUWOLFIA SERPENTINA ROOT—16 bbls, Meer Corp, Tuticorin
d-RIBONOLACTONE—15 dms, Hoffman-La Roche Inc, Hamburg
RUTIN—23 dms, Chas L Huisking & Co, Melbourne
12 dms, Lo Curto & Funk, Sydney
2 dms, Chas L Huisking & Co, Sydney
SAGE LEAVES—100 bls, Split
305 bls, Rijeka
SANDALWOOD OIL—15 cs, International Flavors & Fragrances Inc, Cochin
SEEDLAC—500 bgs, Mantrose Corp, Bangkok
SENNA—151 bls, Meer Corp, Port Sudan
SHELLAC—236 bgs, National City Bank, Bremen
200 bgs, Mantrose Corp, Bremen
SIENNA—550 bgs Reichard Coulston, Leghorn
SODA, CAUSTIC—26 dms, B T Chemco Inc, Gothenburg
SODIUM ALIGNATE—14 dms, E Mendell Co, Havre
SODIUM BICARBONATE—450 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CYCLAMATE—10 dms, Rotterdam
SODIUM DIPHENYLHYDANTOINATE—10 dms, Roussel Corp, Genoa
SODIUM HEXAMETAPHOSFATE—400 bgs, Benckiser Inc, Rotterdam
SODIUM PERBORATE TETRAHYDRATE—2,000 bgs, Chemical Manufacturing Co, Liverpool
SODIUM SILICOFLUORIDE—300 bgs, Copenhagen
STARCH—300 bgs, Stein Hall & Co, Rotterdam
STRONTIUM HYDROXIDE—23 bgs, Terra Chemicals Inc, Bremen
SUCCINIC ACID—67 cs, Gyma Lab, Yokohama
SULFUR, CRUDE—11,005 tons, Allied Chemical Corp, Coatzacoalcos
TAMARINDS—70 bbls, Meer Corp, St Johns
56 bbls, S B Penick & Co, St Johns
51 bls, Wm M Allison & Co, Tuticorin
TAPIOCA FLOUR—2,770 bgs, Geisman & Co, Kohsichang
963 bgs, Poons Co, Kohsichang
6,272 bgs, Morningstar Paisley Inc, Kohsichang
1,792 bgs, Stein Hall & Co, Kohsichang
TEA TREE OIL—5 dms, Magnus Mabee & Reynard, Sydney
THIOUREA—400 bgs, International Chemical Corp, Yokohama
THYME LEAVES—185 bgs, M J Golombeck, Alicante
200 bls, Cheesbourgh Ponds, Inc, Marseille
TITANIUM DIOXIDE, ANATASE—3,748 bgs, Maruberi Iida Co, Yokohama
TOLU BALSAM—5 dms, Magnus Mabee & Reynard, Puerto Barrios
TONKA BEANS—494 cks, Machado & Co, Trinidad
16 cks, Meer Corp, Trinidad
TRAGACANTH GUM—7 cs, S B Penick & Co, Khorramshahr
145 bgs, Meer Corp, Khorramshahr
20 cs, Paul A Dunkey, Khorramshahr
7 cs, Antwerp
TRICHLOROETHYLENE—200 dms, Sealanes Corp, Leghorn
370 dms, International Selling Corp, Marseille
VANILLA BEANS—41 cs, Damman & Co, Vera Cruz
25 cs, Cristobal
VIOLET LEAVES—8 bls, S B Penick & Co, Rejika
WATTLE EXTRACT—1,020 bgs, Barkey Importing Co, Mombasa
WAX—260 bgs, Hostawax Co, Bremen
WHEAT STARCH—221 bgs, Manhattan Adhesives Corp, Buenos Aires
YLANG YLANG OIL—12 dms, Djibouti
ZINC OXIDE—1,440 bgs, Imperial Paper & Color Co, Vera Cruz
600 bgs, Marseille
ZINC YELLOW—200 bgs, Revelli Chemicals Inc, Antwerp

Los Angeles

AGAR—128 cs, Kobe
ARABIC GUM—100 bgs, Hathaway Allied Products, Port Said
ASBESTOS FIBER—1,600 bgs, Johns Manville Corp, Capetown
860 bgs, Johns Manville Corp, Lourenco Marques
350 bgs, Durban
COPRA—2,633 tons, Procter & Gamble Co, Majuro
250 tons, American Trust Co, Surigao
500 tons, American Trust Co, Manila
DEXTRIN—50 bgs, Arabol Manufacturing Co, Amsterdam
FISHMEAL—13,783 bgs, Chimbote
FUEL OIL—150,013 bbls, Texaco Co, Point a Pierre
GLUE—88 bgs, Hostachem Corp, Amsterdam
KELP—997 bgs, Capetown
MAGNESITE—75 bgs, Cochin
NAPHTHA—132,781 bbls, Texaco Co, Pointa Pierre
PEPPER, BLACK—35 bgs, Singapore
PETROLEUM, CRUDE—905,544 bbls, Union Oil Co, Mina Al Ahmadi
240,000 bbls, Douglas Oil Co, Dumai
647,262 bbls, Standard Oil Co, Dumai
321,001 bbls, Richfield Oil Corp, Mina Al Ahmadi
287,396 bbls, Mobil Oil Co, Rastanura
ZIRCON SAND—1,089 bgs, Frank Samuel & Co, Newcastle
2,000 bgs, Newcastle

Philadelphia

ASBESTOS FIBER—2,260 bgs, Johns Manville Corp, Lourenco Marques
800 bgs, Marine Midland Trust Co, Lourenco Marques
CASEIN—280 bgs, National Casein Co, Rotterdam
2,200 bgs, Buenos Aires
CHESTNUT EXTRACT—600 bgs, Chase Manhattan Bank, Genoa
GRAPHITE—700 bgs, Asbury Graphite Mills, Tamatave
GYPSUM, CRUDE—6,544 tons, U S Gypsum Co, Little Narrows
6,294 tons, U S Gypsum Co, Hantsport
IODINE, CRUDE—60 kgs, Phila National Bank, Yokohama
MANGROVE EXTRACT—400 bgs, Saxe Cutch Corp, Singapore
MOLASSES—16,293 tons, Nuevitas
NAPHTHA—151,402 bbls, Texaco Co, Pointa Pierre
NAPHTHALENE—714 bgs, Antwerp
PEATMOSS—1,500 bls, E Dunwoody, Bremen
1,000 bls, Premier Peatmoss Corp, Hamburg
425 bls, Keer Maurer, Bremen
525 bls, New Amsterdam Import Co, Hamburg
750 bls, Premier Peatmoss Corp, Bremen
PERCHLOROETHYLENE—50 dms, International Selling Corp, Marseille
PETROLEUM, CRUDE—302,777 bbls, Texaco Co, Sidon
200,117 bbls, Great Northern Oil Co, Mina Al Ahmadi
132,000 bbls, Bell Oil & Gas, Co, Punta de Palmas
334,126 bbls, Gulf Oil Corp, Bachaquero
133,319 bbls, Gulf Oil Corp, Puerto La Cruz
275,002 bbls, Gulf Oil Corp, Mina Al Ahmadi
119,219 bbls, Atlantic Refining Co, La Salina
133,561 bbls, Continental Oil Co, San Lorenzo
POTASSIUM NITRATE—100 bgs, H J Baker & Bro, Dunkirk
PYROPHILLITE—3,280 tons, American Encaustic Tiling Co, Long Pond
QUEBRACHO EXTRACT—1,724 bgs, First National Boston, Buenos Aires
RUTILE SAND—2,000 bgs, Brisbane
TRICHLOROETHYLENE—12 dms, Hamburg
VANILLA BEANS—25 cs, Zink & Trieste, Vera Cruz
25 cs, Tamatave
WATTLE EXTRACT—746 bgs, International Products Corp, Durban
ZIRCON SAND—3,995 bgs, Brisbane
3,970 bgs, Sydney

San Francisco

AMMONIUM BICARBONATE—100 bgs, D M Hicks, Antwerp
BARIUM CARBONATE—700 bgs, Bank of America, Antwerp
BAUXITE RESIDUE—1,878 bgs, F D Davis Co, Liverpool
CALCIUM CARBONATE—1,000 bgs, Synkoloid Co, Havre
2,000 bgs, F D Davis Co, Antwerp
2,300 bgs, Antwerp
CALCIUM NITRATE—5,000 bgs, Atkins Kroll & Co, Rotterdam
COCONUT OIL—225 tons, Procter & Gamble Co, Manila
COPRA—1,500 tons, Cargill Inc, Cebu
GINGER—78 bgs, Spice Island Co, Cristobal
IRON OXIDE—896 bgs, F D Davis Co, London
200 bgs, Newport
MOLASSES—2,999 tons, S Western Sugar & Molasses Co, Manila
PAPRIKA OIL—1 dm, Hismoco American Co, Rotterdam
PETROLEUM, CRUDE—75,638 bbls, Standard Oil Co, Curacao
375,848 bbls, Standard Oil Co, Dumai
PIMENTO—40 bgs, California Commodities Corp, Cristobal
100 bgs, Otto Gerdau, Cristobal
PRUSSIAN BLUE—20 dms, A J Draw Printink Ink Co, Rotterdam
SODIUM CYANIDE—400 dms, Ugine Industries, Havre
SODIUM PERBORATE—400 bgs, Westco Chemicals Inc, Antwerp
ZINC OXIDE—460 bgs, London
ZINC SULFATE MONOHYDRATE—100 bgs, P W Bellingall, Antwerp

ECH SPECIALS

Day 80 gal. Gearless Pony Mixer 10 HP mtr.
Patterson 300 gal. SS Sigma Blade Mixer.
Bird 18"x28" Continuous Cent. Filter.
2 Preformers Colton 5½ & 5½T.
3 B&J Cutters, size #2, #½ and Lab.
New Howes 3'x6' Sifter w/½ HP motor.
Abbe 5'x6' Jktd. Ball Mill, chr. mang. steel.
Howes 70 cu. ft. J'ktd Rib. Blender, 15 HP.
Pfaudler 1500 gal. Glass Tank; closed top.

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MACHINERY ANYONE?

2—F. J. Stokes "DDS-2" Rotary Tablet Machines, vari-drive.
2—Gruendler Aristocrats slow speed Hammer Mills, each with 75 h.p. motor, feeder, etc.
1—#2 Sweetland Filter, 17 leaves, 2" centers.
1—Abbe #8 Steel Ball Mill, motor driven.
1—Kinney DVD 8810 Vacuum Pump, 110 c.f.m.
1—Colton #2B single punch Tablet Mach.
1—Lydon 3 truck Atmospheric Truck Dryer.
1—#3 Banbury Mixer with 75 h.p. motor.

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BRILL FOR VALUES

CENTRIFUGES

2—Sharples C-20 and C-27 Super-D-Hydrator, 316 S.S.
1—Bird 18"x28", Solid Bowl, Continuous, 304 S.S.
1—Bird 32" x 50", Solid Bowl, Continuous, 316 S.S.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
1—Tolhurst 26" susp. Rubber Imperforate Basket.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

2—Glascote 750 gal. glass lined jacketed Reactors.
1—1200 gal. SS jacketed Kettle.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—1400 gal. Blaw-Knox, steel, jacketed, agitated Reactor.
1—700 sq. ft. Buflovak 304 SS forced circulation Evaporator.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7'x25', 50 psi.
1—750 gal. nickel clad Mixing Tank, 125# nickel coils.
1—500 gal. S.S. Mixing Tank with nickel coils.
1—4000 gal. Haveg Vert. Tank 8'x12'.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—1500 gal. Stainless Pressure Tank, 5'x10', 90#.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
6—Stainless Heat Exchangers; 1220, 786, 536, 370, 315, 250 sq. ft.
1—Falls Industries 100 sq. ft. Karbate Condensor.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—#5 Sweetland Filter 304 S.S. 120 sq. ft.
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Oliver 3' x 2' 347 S.S. Rotary Vacuum Filter.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Buflovak Vacuum Shelf with 20—60"x80" shelves.
1—Devine Vacuum Shelf with 19—59"x78" shelves.
1—Devine Vacuum Shelf with 10—40"x43" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
2—Buflovak 5' x 30', 3' x 7'6" Rotary Vacuum Dryers 316 S.S.
2—Louisville Rotary Steam Tube 6'x25', 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Traylor 30"x18' Stainless Steel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 10' wide Apron Conveyor Dryer 48' long.
1—4' dia. 304 SS Spray Dryer.

MIXERS

1—Farrel-Birmingham "Midget" Banbury Mixer.
2—Day Imperial 150 gal. jktd. double arm.
1—Baker Perkins 100 gal., jacketed, double arm, 30 HP.
1—Baker Perkins #16TRM, 150 gal. jktd., Vac. 60 HP.
1—Baker Perkins 50 gal. jacketed, double arm.
1—Baker Perkins 10 gal. jacketed 304 S.S. double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
1—Stokes 21K, 304 S.S. Granulating Mixer 82 gals.

MISCELLANEOUS

1—Farrel Birmingham, 8" x 16", 2 Roll Chrome Plated Mill.
2—ISH, ISI Mikro, Pulverizers, 3 HP.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10' dia. Single Whizzer Separator.
1—#5 Mikro Atomizer with motor and cyclone.
2—Bantam Mikro Pulverizers, S.S.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.
1—#22 Rotex Sifter 40" x 56" double deck.
1—#81 Day Roball Sifter 40" x 120" single deck.
25—Chlorimet, Durimet and Duriron Centrifugal Pumps 1½" to 6".

Partial List of Values — Send for Complete Circular

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RECENT DESIRABLE ADDITIONS TO OUR STOCK OF GOOD GUARANTEED EQUIPMENT

Baker Perkins Model UNE #7 Mixer Double Arm; Pressure Top; Motorized.
J. H. Day 3 Roll 5" x 12" Water Cooled Mill, motorized; includes accessories.
Sharples No. 16 Stainless Steel Pressure Tite Centrifugal with 2 HP Motor.
Fitzpatrick Model JT Homoloid Mill in Stainless Steel; 5 HP hi-speed motor.
Whitlock Reflux Condenser; 813 sq. ft. Stainless Tube Sheet, Baffles; Alum. Tubes.
Ertel Nickel-Chrome Filter Press; 12½" dia. 5 chamber complete with Motor and Pump.
2 Stainless Steel 30" MICRONIZERS complete with accessories.
Sprout Waldron Rotary Cutter Model 15B; 15 HP Motor.
Feinc Stainless Steel Rotary Vac. Filter 3' x 1'; String Dis.
Laboratory STAINLESS Drum Dryer with Scraper; 8" x 12½".

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REACTORS and PRESSURE VESSELS

Nickel Clad Reactor; 7' x 11'6"; Manhole; Jacketed and Agitated.
Lancaster Stainless Lined Rotary Reactor; 50' x 17'4"; Jktd.; 300 PSI.
Mojonnier Stainless Steel Vacuum Pans; 3' x 10'; 6' x 12'.
3 Stainless Steel Vertical Pressure Vessels 42" x 10'; Dished Heads.
2 MONEL REACTORS; 2800 Gal. 6'3" x 13'; 175# ASME Jktd. & Internal.
Struthers Wells Stainless Drum Dryers; 5' x 10' and 5' x 4' Complete.
Ames 300 HP Automatic Boiler; ASME 1956; No. 6 Oil Fired.
Struthers Wells Type 316 Stainless Steel Jktd. & Agt. Reactors 2000 Gal.
Stainless Steel Heavy Duty Pressure Tanks; 850 Gal. with Agitators.

DRYERS and EVAPORATORS

9 Devine Vacuum Chamber Dryers from Lab. Size to No. J6 Double Door.
Stainless Lined Rotary Dryer; 50" x 20'; Stokes Rot. Jktd. 34" x 10'.
Zaremba Double Effect INCONEL Evaporator with Calandria; 430 sq. ft.
Stainless Lined Rotary Counter Current Atmos. Dryer 50" x 20'.
Pittsburgh Lectro Dryers; Models BAC Size 25; BWC Size 3500.
Bowen Stainless Steel Laboratory Spray Dryer; 30" x 32".
Multi Pass Jacketed 12" Screw Conveyor; 4 Sections 10' S/S Troughs.

PLASTIC and RUBBER EQUIPMENT

Unused Farrel-Birmingham Late Type 2 Roll Mills 14" x 30"; Uni-Drives.
Other Rubber and Plastic Mills; 16" x 42"; 18" x 42"; 22" x 60".
Calendars 2 Roll 12" x 24", 15 HP; 3 Roll 22" x 58" Complete.
Extruders by NRM, Royle, Allen, electric or oil; several sizes.
Baker Perkins Heavy Duty Double Arm Mixers up to 300 Gal. in stock.
Hydraulic Presses 36" x 36" by Dunning & Boschert, Southwark, Others.
Stokes Aut. Molding Press No. 252; Tablet Presses by Stokes, & Colton.

FILTERS and FILTER PRESSES

Shriver and Sperry Filter Presses to 42" Cast Iron, Stainless, Ni-Resist, Aluminum.
Oliver Continuous Rotary Panel Type Vacuum Filters; 8' x 8' and 8' x 10'.
Feinc String Type Rotary Vacuum Filters 6' x 6' & 8' x 10'; Stainless contacts.
Bird Young Rotary Vacuum Filter, 4' x 4'. Sweetland Pressure Filters No. 2 to 12.
Enzinger Vertical Stainless Pressure Filter; 18" x 26"; ASME; 24 sq. ft.
Stainless Nutsche Type Filter 6' dia. x 2'. Bowser Filter w/Pump; 2000 GPH; 69 sq. ft.
Enzinger Leaf Type Filter; 48" x 57" Tank with 15 leaves; 360 sq. ft. surface.
Sparkler Stainless Steel, Lithcote Lined Filter; 500 sq. ft.

MILLS—GRINDERS—PULVERIZERS

Abbe Jacketed Steel Ball Mills, 42" x 36" with charge of balls.
International Porcelain Lined, Ball Mill 8' x 8'; 50 HP Motor.
Patterson Jacketed Ball Mill, 54" x 42"; good for Vacuum.
Mikro Pulverizers; up to No. 4's. Mikro SS Atomizers Model 5 & 6.
Fitzpatrick Comminuting Mills, Stainless Steel; Models C, D, K.
Williams Hammer Mills to 16" x 48". Raymond Imp Mills; many models.
Williams Ring Roll Lab Mills, 3 Roll, 10" x 3"; complete.
American Ring Roll Crusher with 30" x 33" Throat 50 HP Motor.

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LIQUIDATION
$8,000,000 ALCOHOL PLANT
OMAHA, NEBRASKA

MAJOR ITEMS

DRYERS

12—Buflovak 42" x 120" double drum dryers, ASME 160# WP.
2—Bonnet 7' x 60' rotary hot-air dryers, ⅝" shell, complete.
2—Bonnet 6' x 50' rotary hot-air dryers, 5/16" shell, complete.
2—Davenport 6' x 30' rotary steam-tube dryers, complete.

PRESSURE LEAF FILTERS

1—Sparkler #33-S-17, T304 SS, 91 sq. ft., w/scavenger.
1—Sparkler #33-S-7, T304 SS, 61.8 sq. ft., w/scavenger.
2—Sweetland #12, (24) 36" dia. leaves, 336 sq. ft.
6—Shriver 48" cast iron P. & F. filter presses, 50, 48 & 40 chambers, hydraulic closure.
1—Sperry 30" cast iron P. & F. filter press, 30 chambers.

PRESSES

6—Davenport #2A dewatering presses, vari-drive, motor, etc.
3—Davenport #1A dewatering press, vari-drive, motor, etc.
2—French Oil screw type extraction presses, 60 HP.

EVAPORATORS — HEAT EXCHANGERS — STILLS

2—Quadruple effect evaporators, calandria type, 4050 sq. ft. cast iron bodies & copper tubes. With 1230 sq. ft. horiz. copper pre-heaters & 2450 sq. ft. finishing pans. Total 19,900 sq. ft. each evaporator.
7—Ansonia 691 sq. ft. horiz. dbl. pipe coolers, copper tubes.
8—American 654 sq. ft. spiral steel heat exchangers.
18—Tubular heat exchangers, copper tubes, 1500, 1350, 1130, 637, 380, 290, 184, 176, 156 sq. ft.
2—Acme 96" dia. x 44' high copper beer still columns, (20) perforated & (4) bubble cap trays.
5—Leader 96" dia. steel rectifying columns, 44' & 51' high, bubble cap trays.

Also — Grain handling & milling equip., corn-oil processing equip., scales, pumps, steel tanks, structural steel, lab. instruments, valves, etc.

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1—Vulcan 96" dia. x 37' high, T316 SS bubble column.
1—Vulcan 72" dia. x 46'-10" high copper bubble cap column—VACUUM.
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2—Sharples #C-20 Super-D-Hydrators, T316 SS.
1—Sharples #16-P Super Centrif., T304 SS.
1—Struthers-Wells 630 sq. ft. Evaporator, T316 SS.
3—Worthington 160 ton steam-jet VACUUM refrigeration units, w/baro. condenser, etc.
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10—T316 SS tanks: 2750, 2500, 2300, 2250, 2100, 1900 gal.
30—T316 SS heat exchangers; 2000 sq. ft. to 54 sq. ft. sizes.

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7—Alloy Fabricators Type 316 SS pressure vessels, 4500 gals., complete with agitators and drives, 45 psi.
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12—Whitlock Type 316 SS pressure vessels with coils, 270 gals.
3—Type 347 SS pressure vessels with coils, 300 gals.
3—Type 316 SS mixing tanks, 6000 gals., complete with agitators and drives.
8—Acme Type 347 SS settling tanks with cone bottoms, 1000 gals.
1—2600 gals., Type 316 SS vertical vacuum receiver.
3—Vertical Type 316 SS activated carbon absorbers, 5'4" dia. x 16'.
1—Struthers Wells Type 316 SS, 500 lbs. pressure vessel, 75 gals., ASME code, National Board.
2—Project Fabricators Type 316 SS vacuum receivers, 160 gals.
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1—Pfaudler 20 gals., glass lined vacuum receiver.
1—Haveg 500 gals., vacuum receiver.
2—Aluminum horiz. 5000 gals., storage tanks.
5—Pfaudler horiz. glass lined storage tanks, 5000 gals.
1—Pfaudler vertical glass lined storage tank, 5000 gals.
2—Rubber lined tanks, 2500 gals., working pressure 45 lbs.
4—Rubber lined horiz. storage tanks, 5000 gals., working pressure 45 lbs.
16—Rubber lined vertical storage tanks, 4500 gals., working pressure 45 lbs.
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7—Stainless steel condensers from 50 to 300 sq. ft.
4—Stainless steel packed columns, 18" x 15'.
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3—Nash, Model HS-6, Type 316 SS vacuum pumps, with 25 HP motors.
3—Nash, Model TS-12, vacuum pumps, with motors.
1—Stokes Type 316 SS, jacketed, rotary vacuum dryer, 2' x 3'.
14—Copper jacketed mixing kettles, 3500 gals. each.
14—Copper jacketed rotary vacuum dryers, 8' x 10'.
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6—200 gals., Type 316 SS vacuum receivers.
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1—Aldrich Type 316 SS hydraulic triplex pump, size 2-3/4"x4", 500 psi.
1—Quimby Type 316 SS twin screw pump with 10 HP variable speed drive.
2—Powell Type 316 SS 10" hydraulically operated flanged gate valves.
2—Tyler Type 38 tandem SS Hum-Mer screens, size 42" x 9'-8".
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EST. 1886
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1—Buflovak stainless steel rotary vacuum dryer, 3' x 15'.

2—Struthers Wells type 316 SS 2000 gal. jacketed reactors, complete with agitators and drives.

2—Monel 2500 gal. jacketed autoclaves, 175# jacket, 175# internal.

2—Pfaudler glass lined jacketed reactors, complete with agitators and drives, 200 gals., each.

1—Nooter 100 gal. stainless steel reactor, complete with agitator and drive.

1—Struthers Wells type 316 SS 400 gal. reactor, complete with coils, agitator and drive, 250# coils.

1—Hersey stainless steel rotary dryer, 3' x 16'.

1—Allis Chalmers SS 6' x 50' rotary dryer complete.

2—Louisville stainless steel rotary dryers, 8' x 50'.

1—General American 7' x 40' rotary dryer, ⅜" welded shell.

1—Baker Perkins Size 4, laboratory mixer, sigma blades, 1 gal. total capacity.

1—Stewart Bolling 2 roll rubber mill, 6" dia. x 12".

1—Stainless Steel packed column, 18" x 9'.

4—Sperry stainless steel filter presses, P&F, 24" x 24", closed delivery, 12 chambers.

1—Niagara Stainless Steel filter, Model 510-28.

1—Richmond Engineering type 316 SS, 40 cu. ft., double ribbon blender.

10—Robinson stainless steel double ribbon blenders, 255 cu. ft.

1—Banbury #1 mixer, chrome plate rotors, complete with 50 HP motor.

1—Williams, "Comet" 4 roll mill, complete.

1—Baker Perkins double arm, jacketed, sigma blade mixer, Size 16 TRM, 150 gal.

25—Davis Engr. SS heat exchangers, 104, 121, 139 and 168 sq. ft., NEW.

1—Downington Type 316 SS heat exchangers, 750 sq. ft.

1—Cleveland SS double cone blender, 85 cu. ft. working capacity, complete with motor and drive.

1—Oliver SS rotary vacuum precoat filter, 3' x 4'.

1—Stokes #412F vacuum pump, complete with motor.

4—Tolhurst 40" rubber covered, center slung centrifuges, complete with perforate baskets and motors.

8—Western States 40" Type 316 SS, suspended type centrifuges, complete with perforate baskets, plows and 40 HP motors.

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1—Jeffrey Vibrating Conveyor.
1—30" Sperry Filter closed del., 3-eye, 39-plates, 40-frames.
1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
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1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers 120 gal. jkt.
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1—Cyclotherm Package Boiler 250 psi, 600# hr.—20 HP.
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8—Jack. Stainless Kettles 70 to 100 gals. and 200 gals. Closed.
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3—Spiral Blenders, 800 to 2000#.
1—Patterson 5' x 6' Jack. Ball Mill 25 HP.
1—Raymond #3036—3 Roll High Side Mill.
2—Stainless Tanks 500 & 600 gals.
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1—N. J. MX Pony Labeler.
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6—Rotex sifters 20" x 48", 40" x 84", 40" x 120", single and double deck.
4—Mikro pulverizers models 4-TH, 3-TH, 2-TH, 1-SI.
5—80 gallon stainless steel agitated autoclaves, 500 PSI.
4—3 roll high speed mills 14" x 30", 9" x 24", 4½" x 10", 4" x 8".
6—Pony mixers 125, 50, 40, 15, 8, 2½ gallons.
1—International 10 cu. ft. stainless steel cone blender.
1—400 gallon stainless steel jacketed and agitated reactor.
2—Stokes rotary vacuum dryers 2½' x 8', 18" x 42".
1—Hersey steel hot air rotary dryer 1½' x 16'.
1—Glascote 600 gallon glass lined tank.
7—Double arm mixers 300, 200, 125, 100, 75, 50, 30 gallons.

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2—Baker Perkins Stainless Steel, 2 arm, jacketed, vacuum, hydraulic tilt, 150 gal—40 HP, 100 gal—50 HP.
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Kettle—20 Gal. Lead Lined.
1—1000 gal. type 316 Pfaudler not jacketed.
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Koppers Is Marketing 15 "Dylan" Polyethylenes

Koppers Company is now making available through its plastics division fifteen new formulations of low and medium-density polyethylenes.

The materials are identified as "Dylan" polyethylenes 1350, 2012, 2020, 2025, 2027, 2029, 2038, 2040, 2046, 2050, 3046, 3102, and 4042 in natural, and 1014-A and 2014 in black. A full description of the new formulations may be obtained from the division's "Dylan" product manager, Koppers Building, Pittsburgh 19.

Degen Expands Tung Unit

In response to rising interest in thermolized tung oil, Degen Oil & Chemical Company has doubled thermolizing facilities at its Jersey City, N.J., plant. The company, headquartered in that city, markets its thermolized tung oil under the brand name "Polytung Oil."

Petrochem Rate of Growth

—Continued from page 7

the exploitation of previously unused refinery gases, which now provide about one-half of the industry's feedstock requirements.

"Although there are substantial amounts of suitable refinery gases for chemical manufacture," the bank goes on to note, "much of the petrochemical industry's expansion must be based upon exploitation of alternative raw material sources, which are often much more expensive.

"It is estimated that ethylene, presently the most important petrochemical intermediate, can be up to twice as costly to produce from natural gas liquids as from refinery off-gas."

But significant as these few minus factors may be in the short run, they are all but erased by the bright long-term prospects of the plastics industry.

For growth in that industry, the bank believes, should average about 8 to 10 percent per year as more and more plastics are used in construction and automobiles—and in outlets still to be discovered.

Plastics are becoming increasingly competitive with other materials as a result of both new molding techniques which lower fabrication costs and declining plastics prices, the bank observes. In addition, it's noted that synthetic fibers are competing more successfully with the older cellulosic fibers.

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Bids Wanted

Alcohol, specially denatured, 12,480 gals., FSN RF 6810-250-G500, and FSN RF 6810-241-2315-G500, 52,250 gals. Spec. MIL-A-6091A (ASG) Amend. 1. Bid IFBP 383-213-61B, Sept. 27. Aviation Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Ammonium Sulfate and Urea. The Government of India, Ministry of Works, Housing, and Supply, New Delhi, is interested in purchasing 41,400 long tons of ammonium sulfate and 10,000 long tons of urea. Shipments should begin in early early Ocotber and should be completed by November. US suppliers are required to quote in long tons, net weight basis, delivered f.o.b. stowed port of exit, and must indicate maximum quantities they can supply. Tenders, which must be submitted to the Ministers Office, New Delhi, by Sept. 12 should indicate port of entry, loading rate each day of 24 working hours; port draught; if to be loaded from any special berth; port specialties in case of f.o.b. sales, if any; and notice load readiness. Terms and conditions of purchase will be settled in discussion with accredited agents of the manufacturer with unqualified authority to commit their principals. Discussions probably will start September 14, and representatives should file their New Delhi adderss and telephone. Sealed quotations, in duplicate, should be submitted by September 12 to the Secretary of Ministry of Works, Housing and Supply, Government of India, New Delhi, India.

Drugs, Hexachlorophene liquid soap concentrate, 5 gal., 744 drums. Bid IFB M5-32-61, Sept. 22. **Tetracycline hydrochloride** capsules, USP, 250 mg., 100s, 3,576 bots. **Penicillin G potassium** tablets, buffered, 20,000 units, 100s, 4,080 bots. **Neomycin** sulfate powder, USP, 5.0 gm., 1,800 vials. **Bacitracin** ointment, USP, 500 units per gm., 1 oz., 11,100 tubes. Bid IFB M5-34-61, Sept. 22. **Citric acid,** USP, 1 lb., 3,264 bots. **Ether,** absolute, AC, 1 lb., 3,528 cns. **Chloral hydrate,** USP, 1 lb., 1,248 cns. **Petrolatum** liquid, USP, 1 gal., 2,112 cns. Bid IFB M5-34-61, Sept. 22. Marketing Division for Drugs and Chemicals, VA Supply Depot, Somerville, N.J.

Ethyl Acetate, tech., 16,850 gals., Alameda, Calif.; 8,450 gals., Norfolk, Virginia. **Methyl ethyl ketone,** tech., 56,862 gals., Pointe Molate, Calif. Bid IFB 6-34 B, Sept. 20. Military Petroleum Supply Agency, Washington 25, D. C.

Lacquer, 8,329 gals., Spec. MIL-L-19538 (AER) Amend. 2, various destinations. Bid IFB 155-617-61B, Sept. 19. General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Chemical Know-How to Reds: Europeans Are Out to Sew Up Soviet Business

—Continued from page 5

and Rumania on selling its polyethylene know-how for a reported $3 million.

Earlier the huge British firm sold Poland the patent and know-how on polyester fibers for $23.5 million and more recently the Czech National Silon Enterprise bought the rights to a polyester fiber processing method for $615,000.

But in Britain, ICI has plenty of competition in selling processes to Communist countries. Petrocarbon Developments, Ltd., has sold a 40,000-tons-a-year ethylene plant to East Germany. P.G. Engineering and BX Plastics have sold a 5,000-tons-a-year polystyrene plant to the Soviet Union.

Courtaulds, Ltd. is supplying a $42 million synthetic fibers plant to Russia and a $5.6 million acrylic fibers unit to Yugoslavia. Vickers, with Highpolymer & Petrochemicals Engineering, Ltd., is supplying another $5.2 million fibers plant.

According to Economic Committee for Europe studies, Soviet imports of chemical equipment in 1958 totaled $50 million. Orders worth more than that were placed for such equipment in Britain alone during 1959.

West Germany Active, Too

English isn't the only selling language in Moscow for chemical processes by quite a bit. West German firms are supplying $33 million of polyethylene equipment; the Krupp complex is building a terephthalate plant, presumably for polyester fibers, in Russia, and H. J. Zimmer, a Frankfurt engineering firm, is building a nylon-6 plant in Rumania. Another group of German engineering companies headed by Ferrostaal is selling $2.4 million of chemical equipment in Moscow.

Techmashimport — Russia's organ for importing processes, plants and equipment—reports negotiations with Schneider-Creusot and Petrole Chimie in France for chemical plants and equipment. The French firm Krebs will supply a sodium hydroxide plant and Speichem has contracted for cellulose acetate, phosphoric acid and acetic anhydride plants.

The Belgian firm Ste. Etudes et Recherche Industrielles has sold an acetylene and two ammonia plants based on processes of Ste. Belge de l'Azote et des Produits Chimiques du Marly to Techmashimport.

And Imheco, AG, a Swiss firm, is building a polyethylene plant utilizing its Agfo process in Russia. Scientific Design Company, which has a license to sell the Agfo process in most western countries from Imheco, is installing an Agfo polyethylene unit for Foster-Grant Company in the US.

It is a somewhat ironic possibility that details learned in construction and operating the Russian plant, which will be on stream first, may be useful in the Foster-Grant plant—though any such information will come through Imheco.

These examples of western chemical processes leaping the Iron Curtain seem certain to be multiplied in the next few years. The failure of the Summit, the worsening of international relations and the discovery of a key spy in every American archaeology student apparently has had no effect on the course of Russia's commercial relations with European countries and companies.

USSR Building Program in Trouble

Reports from Moscow also indicate the Soviet Union is running into more difficulty with its capital construction program which could bring more business to European engineering firms.

The State Committee for Automation and Machine-Building has declared that only 85 percent of the capital construction plan for 1959 was fulfilled. Another report states that of seventy-seven plants now under construction, fourteen were started more than ten years ago, nineteen have been under way eight to ten years and work on twenty has been going on five to seven years.

The Machine-Building Committee states that 125,000 different types of machines, instruments and equipment are now in production and calls for simplification.

ICI found a nearly insatiable demand for technical information during its two-week exhibitions in Moscow and Leningrad. The company took seven-and-a-half tons of printed material to Russia and had to start rationing distribution after the first five days. Lectures given by company experts on various plastics processes were packed and more questions were handed in at the end of each session than could be handled.

Mr. Chambers of ICI advances strong counters to what he believes are the three main US arguments against developing trade with Iron Curtain countries:

First, helping an unfriendly competitor; second, assisting Communist countries in waging economic warfare; and third, releasing Soviet technical resources for military applications by selling them processes.

"I feel that the long-term advantages of seeing rising standards of living, whether in Japan or in countries such as Poland or Russia, outweigh the short-term embarrassment, however acute, of competition from low-cost goods from these countries if they are sold processes and industrial machinery by countries such as Britain or the US," Mr. Chambers declares.

"We are satisfied that the internal demand in those [Iron Curtain] countries for the consumer goods which will in due course be produced there is so great that we need not fear competition in export markets for a long time to come," he adds.

On Economic Warfare Possibilities

On economic warfare possibilities, Mr. Chambers comments that "after all the free world has the weapon of prohibition of imports from these countries if it is felt that the trade has a dangerous political slant and is intended to do economic damage."

The economics-trained chief of ICI also believes that "at the moment there is certainly no conclusive evidence that exports from Communist countries are designed to cause economic damage in the free world."

The last argument—that selling chemical processes benefits Russia's war potential—is "rather theoretical and in practice has no validity," Mr. Chambers believes.

"After all in Russia, for example, the control of the economy is such that if the government there wishes to have a greater technical effort put into the development of nuclear warfare, they will do this and can do it at the expense of the rest of the economy," he says.

"The extent to which they can be assisted or diverted from such a purpose by increasing or decreasing technical assistance in other industry seems to me to be almost, if not absolutely, negligible," he contends.

Mr. Chambers concludes his defense of trade with Iron Curtain countries by stating his belief that the more "we trade with Communist countries and the more we exchange visits for ordinary commercial or industrial purposes as distinct from mere sight-seeing, the better we shall understand each other and the more chance there is of reducing international tension." Mr. Chambers hopes that "a similar belief will spread among our American friends."

Communists Seen a Secondary Market

There has been a tendency among some British firms to see trade with the Communist bloc as a possible means of making up the loss of business should the European Free Trade Association fail to conclude a successful agreement with the European Common Market.

This theory has received no official backing and most British and continental businessmen continue to look at the whole European market as their main opportunity and trade with Communist countries is seen as a profitable, but secondary, market.

Soviet Deputy Premier Anastas Mikoyan, reviewing East-West trade in a special article for the leading German financial paper *Handelsblatt* this summer, attacked the formation of both the Common Market and the EFTA as poor solutions for the imperfect workings of the General Agreement on Tariffs & Trade. Mr. Mikoyan proposes a "universal trading organization, at least for Europe as a whole." This organization would be open to both Russia and the US.

In overall terms, Mr. Mikoyan wrote that between 1950 and 1959, Soviet trade with western countries has risen from 1.6 billion rubles to 6 billion rubles. (At the official exchange rate $1 is equal to 4 rubles, though tourists are given 10 rubles for each $1. The tourist rate is considered more realistic by monetary authorities.)

In the past five years, Mr. Mikoyan said, Soviet trade with other Communist countries has increased by 50 percent, while trade with the west grew 100 percent.

European chemical companies have been avidly seeking this business, but they readily admit a considerable caution about its continuity. Few companies, for instance, would build additional capacity to supply Communist orders promised for the future.

"We like to sell them the excess or what we can squeeze out with harder work," comments a chemical executive. This fear of swift fluctuations in product purchasing by Communist ministries is one hard-headed reason back of the preference some companies have for selling processes.

There is also the hope that processes working in Communist countries will build up demand for highly profitable chemical products faster than the countries can supply them.

European companies report no commercial skulduggery in their dealings with Communist ministries or trading organizations. British companies selling to Red China, for example, find the Chinese very tough in negotiation, but once the contract is signed they adhere to it scrupulously. "They usually pay one day ahead of due date," says a Britisher.

Whatever caution may be felt about the continuity of Communist business, orders in hand are eagerly sought. This summer semi-official delegations of top British and French businessmen have visited Moscow and, on a somewhat lower level, a group of eleven Scottish businessmen made the ministries "grand tour."

Soviets Now Want Long-Term Pacts

Both British and French delegations discussed with Russian officials the present state of the Soviet twenty-year plan now being developed. The Soviets are apparently interested now in much longer trade agreements than in the past—and much longer agreements than Britain and France are willing to sign.

A Dutch group with representatives from the engineering, chemical, textile and banking businesses will visit Moscow later this month.

When orders from China declined this year, some British machine tool makers visited Peking to find out what was wrong. They reported that re-imposition of licensing and quotas on imports from China was a major factor and "independent experts" recommended some conciliation to soothe the Chinese.

Britain's Board of Trade maintains that China is getting exactly the same treatment every other state-trading nation receives. Both UK exports to China and imports from China in the first months of 1960 were averaging $7 million a month.

To help their industries, financial publications in Germany have prepared special editions in German-Russian and Chinese-English to tell the German story, complete with advertisements from leading companies and banks. A British publication with audited circulation offers advertising coverage reaching "Soviet factories, buying departments, town planning councils and technical institutions."

In contrast with the non-commercial American exhibition in Moscow last year, both France and Britain have scheduled commercial shows in Moscow next year. The British Trade Fair is sponsored by the Association of British Chambers of Commerce and the All-Union Chamber of Commerce of the USSR. More than 200 companies and trade groups already have signed up for space in the fair.

Who Will Exhibit in Moscow?

Chemical companies which will be exhibiting at Moscow include Distillers Company, Ltd.; Fisons, Ltd.; ICI, and International Plastics (East), Ltd. Both Petrocarbon Developments and Vickers, which have sold processes to Russia, will be exhibitors. Another exhibitor in the last published list was Pfizer, Ltd., subsidiary of Chas. Pfizer & Co., Brooklyn, N.Y.

To build more sales with satellite nations, Fisons this summer has had one of its European sales executives touring Poland and Czechoslovakia. Fisons notes that trade with a state organization is complicated because foreign trade has to fit in with the "economic plan" set for the country.

Other European salesmen report selling difficulties in Russia rather similar to those in a western country: finding and getting to know the right man. It's the general feeling that the official and semi-official trade delegations are useful in Communist countries, particularly because they can open doors and locate the right people to talk to.

ICI's experience can testify both to the length of time required to tie up business and to its growth. The polyethylene talks with Poland and other satellite countries have been going on for some time with periodic breaks for the Communist negotiators to return to their ministries for reports and discussion.

But despite such problems, ICI reports a large increase in sales of plastics and dyestuffs to Eastern Europe and especially to the USSR. Such exports in 1959 totaled $9.5 million, against $5.3 million in 1958, and were 3.9 percent of the company's total exports. These exports nearly matched ICI's exports to the US of $10.1 million in 1959.

British chemical exports to China last year were $9.5 million, up from $8.4 million in 1958. This growth was achieved despite a drop in drug exports to China, which were $490,000 against $2.7 million in 1958.

French companies also report rapidly growing sales to Russia and other Communist countries, particularly China. Chemical exports by French firms to China in 1959 were $5.6 million, an increase of 321 percent over 1958. Exports to the Soviet Union totaled $3 million, up 119 percent over 1958. Titanium dioxide, salicylic acid and a wide variety of essential oils were the major exports to China.

Sino-German Trade Growing Fast

German studies show Chinese trade growing fast in 1960, with first half exports up 53 percent over 1959. Total German exports to China in 1959 were $130 million, down from $162 million in 1958, but still well ahead of the $48 million in 1957. The major chemical item in 1958 was fertilizers, with Germany shipping $18 million worth to China.

While a detailed breakdown isn't available, chemical products were one of the few categories of German exports to the Far East (mainly China and Japan), which increased in 1959 over 1958, though fertilizers were down. Plastics exports to the Far East last year rose 40 percent to $14 million; dyestuffs were up 50 percent to $22.6 million, and drugs were about unchanged at $16.5 million.

Statistics covering trade with Communist countries are difficult to interpret because of the amount of indirect shipments, triangular deals and free port trans-shipments. Some of the trade is covered by trade agreements which set targets.

The recent UK-Soviet agreement, for example, calls for exchange of $11.4 million of consumer goods each way in the year ending June 30, 1961. A 1958 agreement between Russia and Germany set a target of $300 million total trade for 1960, but this goal probably will not be reached.

German statistics in recent years show a sizable deficit for Germany in this trade with Russia. The adverse balance was $15.5 million in 1958 and was at least double that last year.

Economists attribute this excess of imports over exports to the fact that much of Germany's exports to Russia is in the form of capital goods which may take a year or more to manufacture. Germany receives mainly raw materials from Russia such as wood pulp, mineral oil, asbestos, manganese and chrome ores, cotton, flax and tobacco.

This pattern of Russia exports is fairly typical. Britain says that timber accounts for 45 percent of its imports from Russia. The UK last year took more Russian exports that any other non-Communist country—to the total of 663 million rubles.

Russians Want to Sell Their Oil

Soviet trade delegations this year have been harping on the importance of western countries buying more Russian goods so that the Russians will have more foreign currencies with which to buy foreign goods.

This plea in practice has quickly boiled down to an attempt to negotiate increased sales of Russian oil, which is hardly a topic to thrill countries whose own oil industries already face a world over-supply and declining prices.

One of the Soviet export organizations, V/O Sojuzchimexport, concentrates on chemical and drug products and regularly advertises its wares in European papers. Among the products it has been offering lately are methanol, aniline dyestuffs, fine chemicals, Tibetan medicinal products and vaccines against encephalomyelitis and multiple sclerosis. Some European laboratories have bought the vaccine against multiple sclerosis for testing and it has been widely reported to be a rabies serum.

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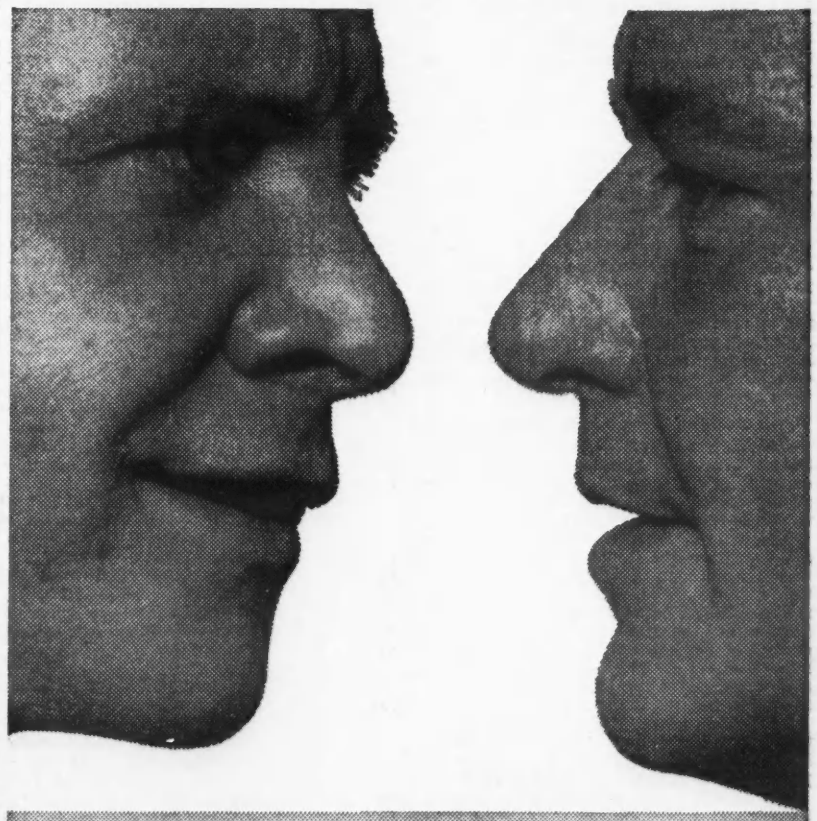

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